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C.F.T.R.I., MYSORE

CONTROLLING POLLUTION
— A SURVEY

RECESSION IN THE WEST

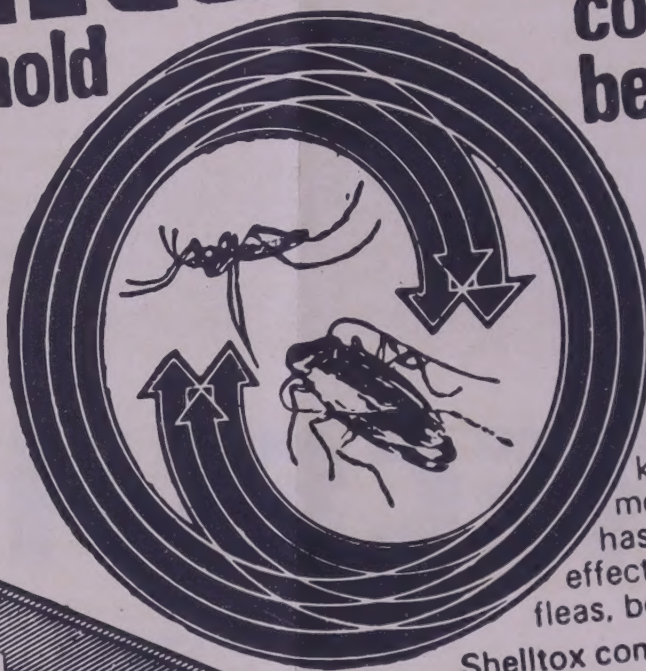
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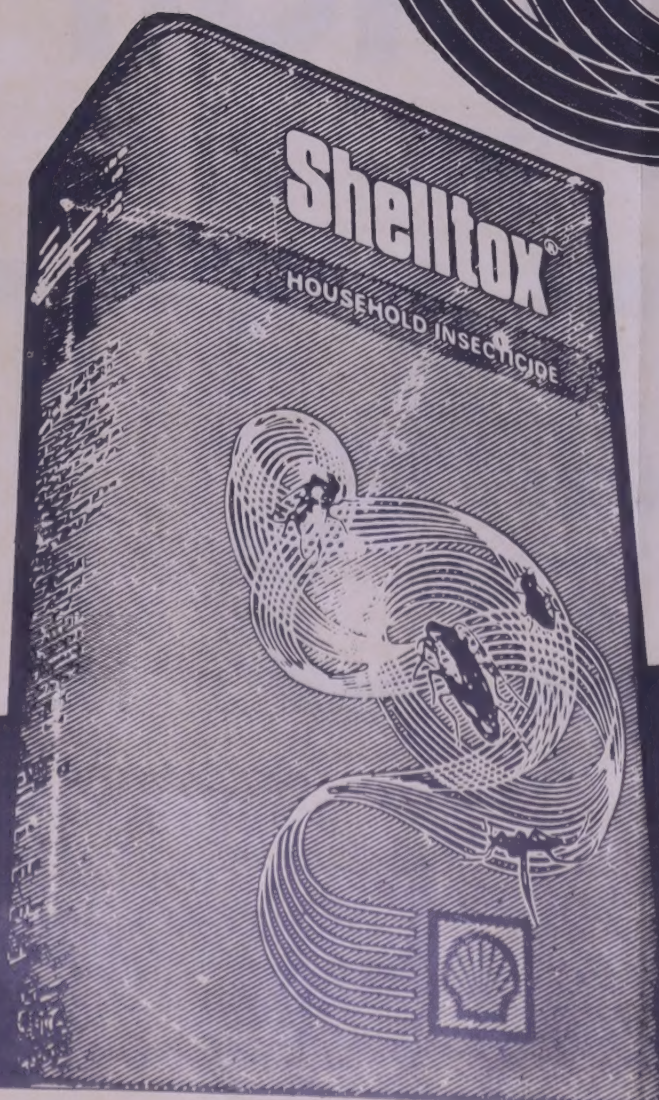
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Case for reduction in bank charges

SIR — Your report on the 'Case for reduction in bank charges' (*Commerce* dated June 5, 1982) makes interesting reading. It is high time that a thorough analysis on the cost of bank services is made and implemented without the least delay. In this connection the Foreign Exchange Dealers' Association of India has really done a great service by simplifying the bank charges for various foreign exchange transactions and bringing uniformity among the bankers. The re-defined tariff is made available to all the bankers in a booklet form and, therefore, there is no ambiguity in collecting charges in foreign exchange transactions.

A similar exercise for domestic transactions is the only solution to bring to a close the eternal fight between the bankers and customers which at times borders on the conventional mode of bargaining. At present the problem confronting the bankers is that they are not fully aware of the various charges to be levied and that they tend to pass on the expenditure for their own delay to the customers. In my opinion the customers have a right to know the various charges before they entrust their transactions to their bankers. I think no bank has so far produced a tariff for its various transactions and made it available to their customers in a booklet form.

Regarding the quantum of charges levied in India by the various banks I may add that, compared with other international banks, charges in India are very much on the low side. My suggestion is that the Indian Banks' Association should come out in all earnestness to bring out a uniform pattern of charges.

M. Ramani
MADRAS

Balance sheet of textile strike

R — Reading Mr D.B. Mahatme's study entitled 'Balance Sheet of Textile Strike' appearing in *Commerce* May 22, 1982, is not a shock. The study has rightly focussed attention on the existing conditions of the textile industry and the pitiable conditions of the workers.

I am of the view that it is not only a loss of the mill owners but also the loss of the managed, which a developing economy like India cannot afford. It is depressing to note that it is merely a case of exploitation of labour force for which trade union leaders and management are responsible. The poor workers can not remain on strike for an indefinite period. They should further realise that it is not their loss but for the country as a whole. Both the management and managed should have flexible attitudes towards the problem. If this state of affairs continues, it would be difficult for the management as well as the labour force to recoup themselves from the losses which they have incurred.

I congratulate the author on his presenting a unique study on the existing problem with relevant facts and figures.

Badar Alam Iqbal
Lecturer

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NOTICE

It is hereby notified for the information of the public that V.M. Salgaocar & Brother Private Limited, P.O. Box No. 14, Salgaocar House, Vasco da Gama, proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for providing facilities/services of coating/laying of 500 Kms. of pipelines per annum. Other particulars of the proposed new service facility are as under:

(i) Name of the proposed undertaking.

A new company will be incorporated.

(ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking.

V.M. Salgaocar & Brother Pvt. Ltd.

will promote a new company, the share capital of which will be held by them, inter-alia, with the foreign collaborator.

Management Structure
Board of Directors of Applicant Company

1. Mr V.M. Salgaocar
2. Mrs H.V. Salgaocar
3. Mr A.V. Salgaocar
4. Mr S.V. Salgaocar
5. Mr D.V. Salgaocar
6. Mrs J.D. Bhandarkar
7. Mr A.Z. Medeira
8. Mr E. Fernandes

The initial Board of the new company will consist of Directors from the promoter group to the extent of 60% and from collaborators to the extent of 40%. Shri V.M. Salgaocar will be the Chairman of the new undertaking.

(iii) Capital structure of the applicant, person or authority and of the proposed undertaking.

Applicant: Authorised and paid-up capital is Rs 1,00,00,000/- divided into 1,00,000 equity shares of Rs 100/- each.

Proposed Undertaking:

Authorised capital is Rs 10,00,00,000/- divided into 1,00,00,000 equity shares of Rs 10/- each. Paid-up capital will be Rs 2,50,00,000/- divided into 25,00,000 equity shares of Rs 10/- each.

(iv) Proposed location of the new undertaking.

In the Union Territory of Goa, Daman & Diu (Notified backward area).

(v) Brief outline of the cost of the project, the scheme and source of finance.

Cost of project covering land, buildings, plant & machinery and other expenses is Rs 7,50,00,000/-.

Schemes & Source of Finance

Equity : Rs 2.5 crores
Borrowings : Rs 5 crores

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

For V.M. SALGAOCAR & BROTHER PRIVATE LTD.

(D.V. SALGAOCAR)
DIRECTOR

Dated this 22nd day of June, 1982.

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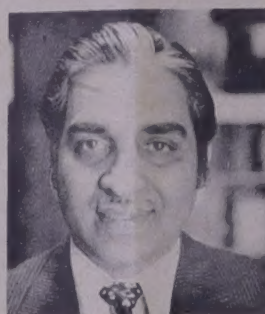
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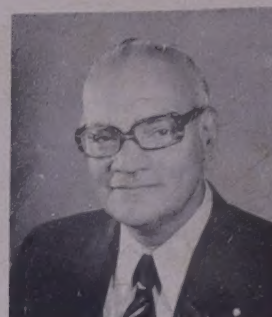
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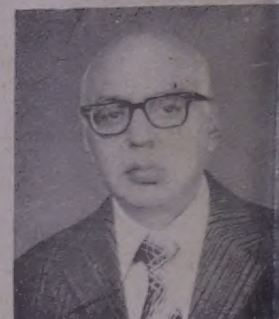
Roy



Sheth



Swamy



Kashyap

Mr M.V. Wagle has taken over as director, group corporate planning and finance of the Murugappa Group and as special director of the Tiam House Services Ltd., Madras. Prior to this, Mr Wagle was the special director (finance) of the Tube Investments of India Ltd., TI Diamond Chain Ltd. and TI Miller Ltd.

Mr N. Roy has taken over as chief general manager, inspection and audit, State Bank of India at its Central Office in Bombay. Prior to this, he was the general manager, foreign department, of the bank in Calcutta.

Mr Tarun Sheth has been elected president of the Bombay Management Association for 1982-83. Mr Sheth is the management development manager

of Hindustan Lever Ltd. He has to his credit major research projects in urbanisation and political sociology.

Mr R.K. Swamy, chairman and managing director of R.K. Swamy Advertising Associates Private Ltd., has been elected president of the Advertising Agencies Association of India. Mr Swamy has been active in the advertising field for 40 years. Mr Roger C.B. Pereira, chief executive and director of Shilpi Advertising Ltd, was elected vice-president.

Mr Arjandas Kashyap has been re-elected president of the Indian Steel Rerollers' Association. Mr Kanti Sanghvi was elected senior vice-president and Mr P.M. Jain and Mr L.C. Surana zonal vice-presidents.

THE WEEK

A GATT committee will examine India's complaint against the countervailing duty imposed by the US on industrial fasteners and the duty increase on leather footwear at Geneva next month.

Linde of West Germany and Snamprogetti of Italy have made a joint bid for the proposed petrochemical complex in Maharashtra.

The Projects and Equipment Corporation (PEC) has received proposals from US firms for the supply of cement, paper plants, equipment and machinery worth \$ 120 million.

The Union Government is evolving a comprehensive policy of incentives for multinational companies in India to enable them to boost their exports.

Engineers India Ltd has won a consultancy contract worth Rs 1.75 crores for a 2000 tonne-per-day (tpd) methanol project in Malaysia.

Thailand has offered to cooperate with India in developing fishery resources along the Indian coast.

Air-India has raised a Euro-dollar loan of \$ 88 million for the purchase of three Airbuses. The loan has been arranged by Lloyd's Bank International, London, and the State Bank of India at an interest rate of 3/8 per cent over LIBOR for the entire loan period of 10 years.

Wheat procurement by official agencies has crossed 7.20 million tonnes this year.

The Gujarat Government has formulated a plan for mobilising foreign remittances worth Rs 100 crores from the resident Gujaratis.

The Union Government has allocated Rs 90.3 crore to state governments under the National Rural Employment Programme for the first two quarters of the current financial year.

Five African countries — Nigeria, Sierra Leone, Ivory Coast, Senegal and Liberia — have expressed a desire to enter into agreements with India for cooperation in agriculture, industry and mining.

The Union Energy Ministry has decided to set up 350 MW of additional power generating capacity this year.

Wholesale price index

The latest available wholesale price index for all commodities at 284.6 for the week ended June 12, 1982 showed a rise of 1.9 per cent over the preceding week and 1.9 per cent over the year.

Money easy

Conditions in the Bombay short-term money market were as easy as of Monday (June 28, 1982). In the inter bank money section, both notified and commercial funds were renewed at six per cent. Fresh money was transacted at 6.5 per cent. The market closed at six per cent.

Textile strike: Search for solution

It is certain that the over five-month old strike of 2.25 lakh workers in the 60 textile mills in Bombay is hurting as much the economy of Maharashtra as it is hurting the mill industry and its workers. The strike, as the government and millowners had expected, has not fizzled out despite the hardships that the workers are undergoing, over a lakh of whom have reportedly returned to their native places to find whatever work they can. And the workers seem to be in no mood to give in without some compensation for the hardships they have undergone. A solution to the impasse has, therefore, become urgent. The strike, as every one admits, has resulted in a colossal loss of production, exports and government revenues. At the recent meeting of the Bombay Millowners' Association, its chairman, Mr Hareshchandra Maganlal, pointed out that the total number of mandays lost was already around 10 million, which had surpassed even the total number of mandays lost by the country as a whole in 1981, which was around 25.5 million. He estimated the loss of production at around 600 million metres valued at Rs 600 crores, the loss in exports at around Rs 115 crores, the loss of revenue of the central and state governments at around Rs 120 crores and the loss to workers by way of wages and fringe benefits at around Rs 125 crores. This apart, the industry has had to meet by way of standing charges well over Rs 110 crores while there has been no cash income flowing in. As Mr Maganlal said, the strike has thus turned out to be disastrous to all concerned.

The mill industry is naturally anxious to see an early withdrawal of the strike and the chairman of the Millowners' Association has suggested that the government could well refer the dispute to the arbitration of the Industrial Court under Section 73 of the Bombay Industrial Relations Act, 1946, which enables the state government to act if it finds the dispute is hurting the economy of the state or there is fear of breach of law and order. Significantly enough, he also added that in case the government intervened in the manner suggested by him, "all the trade union leaders gracefully accept such a reference and withdraw the strike which has harmed both the industry and labour, particularly the industry which has been thoroughly incapacitated to reopen in view of heavy drain on capital and reserves." There is thus no insistence, as in the past, to deal only with the Rashtriya Mill Mazdoor Sangh (RMMS), which is recognised as the bargaining agent under the Bombay Industrial Relations Act. The workers are obviously enchanted with RMMS and reality demands that this factor be recognised. This is not to say that all the workers of the 60 mills have come under the sway of the militant labour leader, Datta Samant, and his Maharashtra Girni Kamgar Union. His union has yet to establish the right to recognition under the Bombay Industrial Relations Act and the extent of Dr Samant's hold over the textile workers will be known only when procedures for recognition under the Bombay Industrial

Relations Act are fulfilled. The logic of the situation, however, suggests that Dr Samant cannot be kept out of the picture completely and under the suggestion made by the Millowners' Association it is open to the government to refer to the Industrial Court the pending demands of RMMS, as also of the Maharashtra Girni Kamgar Union, as made out by it, though vaguely, in Dr Samant's statements before the strike and in his writ petition before the court. The Industrial Court can thus be asked to adjudicate not only on the demands of RMMS, but also on the demands by Dr Samant.

The trade unions have, in the week since this suggestion was made on June 23, not reacted in any way. But if there has been no positive reaction, there has also not been a hostile reaction. This should be considered significant and taken also as an anxiety of the workers, as much as of millowners, to find a solution to the strike. Obviously, the millowners have calculated that their stand that the industry has no capacity to bear an extra burden on account of wages or fringe benefits will be fully vindicated in a court of law. They also perhaps expect that once the court accepts that position, the workers will appreciate that they had been completely misled by Dr Samant and that the prolonged strike had only harmed their interests and caused a lot of hardship.

It is not to be denied that Bombay's textile industry, since last year, has been passing through a very difficult period because of the demand recession in textiles and the strike has crippled the industry. It is feared that some mills, even if the strike is called off, will not be able to reopen because of erosion of their reserves and anaemic conditions of their finances. To expect the industry to pay wages on par with the chemical and engineering industries in Maharashtra is, therefore, asking for the moon. As pointed out by Mr Hareshchandra Maganlal, if the textile industry is required to pay the same wages as are obtaining in chemicals and chemical products or engineering industry, then wages will absorb the entire value added by production and the government will have to forego its taxes, the capital, its interest charges and enterprise its profits. He has warned that this would lead to an intolerable situation, which, if not controlled in time, would lead to a total economic chaos to the detriment of one and all. The workers, of course, will not easily reconcile themselves to this situation even if the Industrial Court upholds fully the case of the mill industry. The mere fact that the textile industry in Bombay has a larger educated workforce than in the past would not help. The mill industry and the government, on their part, will have to help the process of adjustment by giving some concessions to workers. The Bombay textile industry is not of uniform character and some of the mills are much better managed and better modernised than others. At least these mills can make a conciliatory gesture to their workers.

Sharp rise in wheat prices

THE prospects for wheat seem to be reassuring, despite the damage caused by widespread unseasonal rains and hailstorm in the major producing states. The estimates of production loss vary from one and a half to two million tonnes by the official Central teams to as high as 7.6 million tonnes by the All-India Foodgrains Dealers' Association. However, the gathering tempo of wheat procurement suggests that as against the target of 38 million tonnes the crop size may turn out to be about 36 million tonnes — marginally lower than that of 36.5 million tonnes in 1980—81. Whatever may be the extent of damage, the fact remains that it has helped create the scarcity-psychosis which in turn has exerted pressure on prices: In Meerut market prices skyrocketed from Rs 147.50 per quintal at the end of April to Rs 210 at the end of May. This marked a rise of as much as 42 per cent in a single month as against a fall of two per cent during the corresponding month last year. In the Delhi market prices increased from Rs 205 to Rs 275 per quintal during the same period — a rise of 34 per cent as against that of 17 per cent during May 1981. The contra-seasonal increase of this order in the prices of this staple food in the principal markets should undoubtedly provide a cause for concern. More particularly so, for it is the poor and the middle class people with low purchasing power who suffer the most on account of rise in foodgrain prices.

Uttar Pradesh, Punjab, Haryana and Rajasthan account for almost three-fourths of the total wheat production in the country. According to some reliable estimates in most of these states the damage was caused to the crop at the post-harvesting stage while lying in the open fields. Before the harvested wheat is removed for threshing, the crop remains exposed to the weather for quite some time. Consequently when the unexpected rains came, in Uttar Pradesh 15 per cent of the crop already harvested was damaged and in Haryana the extent of damage was as high as 45 to 50 per cent. This should drive home the point that if the post-harvest technology is advanced it would be a kind of insurance against the wheat crop losses which account for two-thirds of the total rabi foodgrains production in the country.

Despite the late start of the procurement season and its disruption because of unseasonal rains in May, the procurement of wheat has gathered strength in the first week of June. During the current marketing season (April 1982 — March 1983) till June 11 wheat procurement crossed the six million tonne mark to reach 65.1 lakh tonnes as against 65.9 lakh tonnes during the entire marketing season last year. Of this, Punjab has procured more than 43 lakh tonnes and Haryana about 13 lakh tonnes. In view of the continued heavy arrivals in the market, the government's decision to relax the procurement norms (*i.e.* to allow the official agencies to procure sub-standard wheat with a high moisture content and highly infected by karnal bunt), and traders' unwillingness to buy damaged wheat, procurement in the current season was

expected to exceed the last year's total of 66 lakh tonnes by at least 10 lakh tonnes and perhaps could reach 80 lakh tonnes.

Wheat provides one of the few bright areas of the Indian economy with outstanding growth record. It is one of the crops which have benefited the most by the green revolution. Between 1949-50 and 1964-65 wheat production increased from 6.4 million tonnes to 12.3 million tonnes. During the subsequent 16 years ending 1980-81 production of wheat almost trebled to 36.5 million tonnes. In other words, there was a sharp acceleration in the rate of growth from 4.4 per cent per annum in the first period to 7.1 per cent a year in the second period. Notwithstanding such an excellent performance, it is the irony of the situation that even with small fluctuations in output the country has to resort to import. Although official spokesmen of the Krishi Bhavan have ruled out the possibility of wheat import at present, it cannot be said for certain that it would not be necessary to import wheat sometime later. Indeed, damaged wheat may soon lose its quality and may become unacceptable to the consumers. There should be a realistic assessment of the wheat procured. It is still green in the memories of many that last year India had imported nearly 2.25 million tonnes of wheat worth about Rs 330 crores. The possibility of import brings to the fore the crucial question of building up a buffer stock. The government had announced its intention to create a buffer stock of 12 million tonnes of foodgrains in addition to the operational stock of five to six million tonnes. Unfortunately this still remains an idea.

As on April 1, there was a buffer stock of 10.9 million tonnes, consisting of 4.5 million tonnes of wheat and 6.4 million tonnes of rice. This was higher by about one million tonnes than on April 1, 1981. By May end the size of the stock increased to 15 million tonnes, of which nine million tonnes was wheat. The world outlook for wheat for 1982 is slightly better than for 1981 in that wheat production is expected to increase by 475 million tonnes as against 460 million tonnes last year. However, the prospects for foodgrains production in the USSR are dim for the third year in succession during 1981 with an expected production of 170 million tonnes against 189 million tonnes in 1980. The USSR is already in the market to buy wheat. Its import requirements are placed at 42 million tonnes as against 34 million tonnes last year. Indian authorities should make all the possible calculations and should not fight shy of making timely imports, if necessary, when the going is good. While making these calculations, the government cannot afford to ignore the needs of the National Rural Employment Programme (NREP) which generated as many as 33 crore mandays of employment in 1980-81. There was an estimated decline to 10 to 12 crore mandays in 1981-82 mainly as a result of the low release of foodgrains for this Programme. Even while confronted with the difficult balance of payments situation it would be worthwhile to import foodgrains to keep alive such a productive scheme as NREP.

EDITOR'S NOTEBOOK

Vadilal Dagli

Gold tumbles again

GOLD has again hit the headlines in the Western press, when on June 21 prices pierced the floor of \$ 300 an ounce (Rs 808 per 10 grams) from \$ 328 (Rs 992 per 10 grams) on June 9. It has also nosedived below \$ 5 an ounce level. Only a year ago, gold prices were ruling around \$ 460 per ounce. In other words, during the last year or so prices in the London market have fallen by about 35 per cent. The major driving force behind the decline in the prices of gold during recent months is the strength in the external value of the dollar against major currencies on account of prevailing high interest rates and heavy selling of gold on account of shortage of foodgrains by the Soviet Union and unloading of gold by South Africa and Iran.

The rising interest rates in the US have attracted even the oil-rich countries to disinvest their gold and invest in financial assets. Recession in many West European countries might have aided the downtrend in prices. More than anything else, it is the simple business not to hoard a particular commodity in the days of falling prices and anticipation of further fall. In India during the last one year or so prices of gold have declined, but just nominally. During the year ended June 21, 1982 gold prices in the Bombay market declined from a meagre Rs 30 to Rs 1,640 per 10 grams or by about two per cent. As a result, the difference in gold prices between the Bombay and London markets has widened from Rs 370 per 10 gram in June 1981 to more than Rs 830 in June 1982.

Three-wheeled rickshaws or "Milkshaws"?

MY belief that we should not thoughtlessly import costly technology in the name of modernisation but have a labour-intensive low-cost technology in the capital-short Third World has been further strengthened when I learnt that in Bangladesh three-wheel rickshaws are used to speed fresh milk delivery instead of maintaining costly trucks. A new type of rickshaw is made which is called "milkshaws" and equipped with an insulated box in which milk can be kept cool during delivery. Each box

is mounted on the rear wheels and has a capacity of 250 litres. Stationary versions of the boxes are also manufactured for use at stores and market places. Nearly 100 such rickshaws are operating in Dacca, where the usual problem of city traffic is compounded by the need to keep milk from spoiling in the hot climate. This "milkshaw" was developed by a project of the Food and Agriculture Organisation (FAO) under the United Nations Development Programme (UNDP). The project was sponsored by the Bangladesh Milk Producers' Cooperative Union, which had earlier used 16 trucks for distribution of milk, but the trucks proved inefficient and uneconomical. The new milkshaws cost about \$ 400 as compared with \$ 30,000 for an imported insulated truck. In adopting the new milkshaws Bangladesh has been saving in foreign exchange, and fuel while distributing about five times the amount of milk delivered by the trucks. They also maintain excellent milk quality and also provide regular daily employment to nearly 100 rickshawmen and support to their families.

Avoidable discourtesy

I am shocked to know that the Ministry of External Affairs had failed to send its representative to the Palam airport to see off the retiring Pakistani ambassador, Mr Abdul Sattar, when he left for Islamabad on June 14 to take over his new assignment there. The Ministry's excuse that Mr Sattar's travel plans had been received "late" for any of its representatives to be able to see Mr Sattar off does not appeal to reason. According to protocol the Dy. Chief of the Protocol Division receives ambassadors and is required to be present at the airport to see off retiring ambassadors. It has not been explained why no Indian representative could be present at the airport particularly when ambassadors from other countries were present to see off Mr Sattar. The External Affairs Ministry woke up to its failure only after the Pakistani embassy in New Delhi had contradicted a news agency report that senior officials of the protocol division of the Ministry of External Affairs were present at the airport (a poor commentary on the mode of reporting in India!). Only

then the Ministry felt the necessity to offer its regret over the failure. The Pakistani embassy officials stated that intimation regarding Mr Sattar's departure had been communicated to the External Affairs Ministry on June 10. If four days' notice is not adequate for the Ministry of External Affairs to arrange for an officer to go to the airport a few miles away from the office, obviously it calls for some drastic re-organisation of the Ministry.

From Rajenbabu to Zail Singh

IT is a measure of the decline in our public life that a person like Mr Zail Singh should have been selected by the ruling Congress (I) party as its nominee for the august office of the President of the Republic of India. The decline could be described as from Rajendra Prasad and Radhakrishnan to Zail Singh. In view of the overwhelming voting strength of the Congress (I) Party it is almost certain that Mr Zail Singh will be the next President. At a time when most politicians are corrupt and have lost people's esteem Mr Zail Singh may be described as a person who is not known to be corrupt. But that is all one can say about him. It was widely rumoured that because of his failure as the Home Minister, particularly in dealing with the problems of Assam and Mizoram, Mr Zail Singh might be dropped from the Cabinet. But Mrs Gandhi has decided to kick him upstairs. This exercise in getting rid of an inefficient minister might do damage to the office of the President. If it is the intention of Mrs Gandhi to convince the Sikhs that they have an honoured place in the country, surely there were other Sikh leaders like Sardar Swaran Singh, who could have been invited for this post. Mr Zail Singh's views on current affairs are the views of a man who gets excited by muscle power. Had it not been so he would not have unashamedly praised Hitler in Parliament last March. Mr Zail Singh told a stunned Parliament "Hitler was very good man personally. He helped people and was brave but was a dictator." Even the Congress (I) members of Parliament pleaded with the Deputy Speaker to expunge Mr Zail Singh's remarks on Hitler.

COVER STORY

RECESSION IN THE WEST: THE US SCENE

HASMUKH SHAH

WASHINGTON

THE United States economy, which is gripped by what has become the most debilitating downturn in four decades, is still reeling from the recession's ill effects. And, high interest rates and political squabbling over the fiscal 1983 Federal budget are impeding the nation's economic recovery.

"We have been severely hurt by the recession and are concerned that a normal recovery is being delayed or suppressed by the Washington standoff over the federal budget and the continued threat of high interest rates," says William De Lancey, chairman of the American Iron and Steel Institute.

A strange recession: The current recession, now into its 10th month, is unusual in many respects. Interest rates, which generally tend to decline during slumps, have remained high. The nation's trade accounts, which normally move into balance or a surplus position during an economic decline, have stayed in the red. And the savings rate, the ratio of personal savings to disposable income, which generally rises sharply during a recession, has defied the norm and dropped further since last July.

"In a typical recession, the savings rate rises significantly", Lacy Hunt, chief economist for Philadelphia's Fidelity Bank, explains. "While the unemployed are forced to dip into savings, those who still have jobs, which is the much larger number, become more concerned about their own economic prospects and alter their spending patterns."

During three of the four recessions since 1960 — the downturn of 1974-1975 was the exception — the savings rate rose an average of 1.2 percentage points, Mr Hunt said. The pattern during the current slump has been different. In spite of tax cuts last October and again in last January intended to stimulate savings, by the end of the first quarter of 1982, the savings rate had declined a tenth of a percentage point since last July to 5.3 per cent.

Congressional budget battle: The Congressional battle over the federal budget has already begun. Divisions within the ranks of both Republicans and

Democrats have produced stormy fights on Capitol Hill as the 1983 budget is taken up for debate by the full Senate and the House of Representatives.

The Republican-controlled Senate has proposed a \$ 779.1 billion 1983 budget blueprint drafted by the GOP majority on the Senate Budget Committee and accepted by President Ronald Reagan. As against this, a \$ 780.5 billion package is fashioned by the Democratic majority on the House Budget Committee.

Both the above plans project 1983 budget deficits of just over \$ 100 billion. The House, however, has rejected all the three budget proposals, the third one from the moderates.

Lukewarm recovery in summer

A lukewarm economic recovery with reduced inflation but still high unemployment is the best the nation can expect this summer with federal deficits soaring past \$ 100 billion and staying there, a group of business economists say.

A poll of the National Association of Business Economists just released said the private analysts believe the recession is continuing in the current April-June quarter but that the economy will turn upward by summer. But, expecting big federal budget deficits to continue, they said economic growth will be less than the nation usually enjoys in recession recoveries. Specifically, it said, inflation-adjusted gross national product should rise at an annual rate of about 2.4 per cent in the third quarter, 2.9 per cent in the fourth and 3.2 per cent for all of next year.

By comparison, real GNP rose at rates of 5.6 per cent and 11.4 per cent in the first two quarters of recovery from the severe 1974-75 recession. Modest, and then brisk growth after the 1980 recession deteriorated into the current downturn by the summer of 1981. The private economists say they hope that any new recovery won't follow that pattern.

The association has about 4,000 members, about 400 of whom were questioned in the current poll by University of Michigan researchers. Although forecasting at

least some recovery, the analysts the large looming deficits must be reduced, even if that means curtailing increases in social security benefits.

More than two-thirds of the economists questioned said the Federal Reserve Board's policies of restraining growth in the nation's money supply is right. But solid majorities said they thought that fiscal policy is "too easy" means too-high deficits, and that it is likely to remain too easy in the next few years. The fiscal policy of the Reagan Administration is seen as the major problem by those taking part in the survey. The federal budget deficit is expected to rise to \$ 112 billion in fiscal 1982, rise to \$ 115 billion in fiscal 1983 and remain high at \$ 105 billion in fiscal 1984.

Consumers hold key to recovery

President Reagan, whose economic programme has focussed on supply-side stimulus and savings incentives, has made an overt admission to date that the forthcoming economic recovery would be consumer-driven. He told the Retail Federation of America that "your industry may be preparing to inch us out of this recession." Thus, it is this sometimes-fickle economic player called the American consumer who is being tagged for a crucial role this summer in the hoped-for economic recovery.

With business profits being squeezed by state and local governments cutting back on spending and factories standing idle, the consumer is being moved to the centre stage by the admission to spur the upturn with a bust of new purchases.

"The consumer is going to lead the way out of the recession," says Murray L. Weidenbaum, President Reagan's chief economic adviser, in a turn away from the once-touted supply-side theory that relied primarily on business investment.

Shortly, the American consumer is going to get a fresh supply of funds as his employer withholds less in taxes because of the 10 per cent tax cut. That will coincide on July 1, with the cost-of-living rise in social security benefits, which, with the tax cut, will add \$ 48 billion to purchasing power at an annual rate.

However, even with this record in recession, there is growing doubt that the economy will perform according to the Reagan Administration's script for a robust recovery in the second half of 1982. While some upturn appears on

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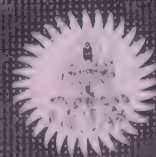
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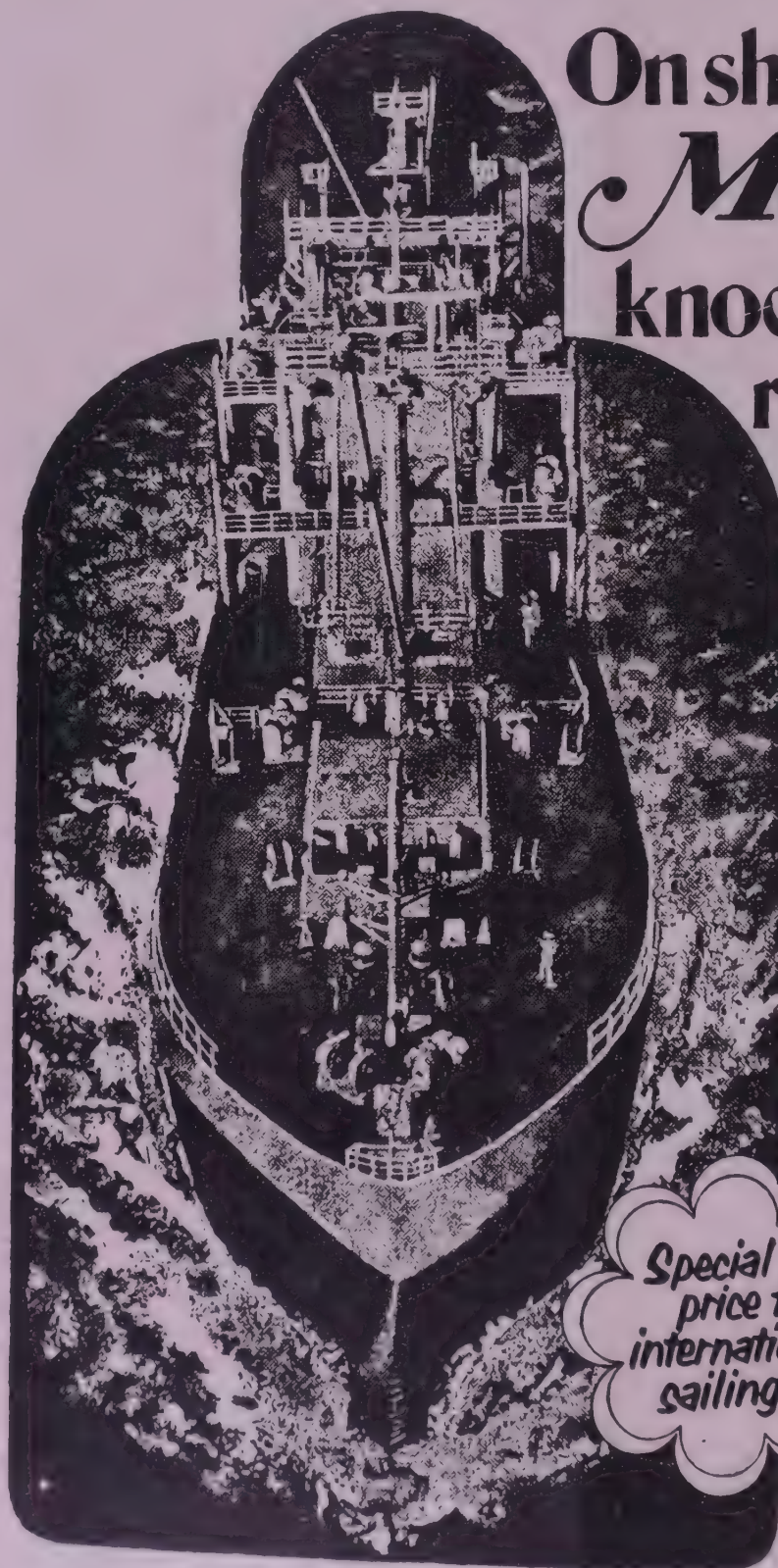
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it could be anaemic and quickly out, as high interest rates continue ar down on the consumer and busi- alike, according to a number of omists.

worse than expected

its latest statistical representation e recession-hit economy of the first ter, the US Department of Com- e has reported, after-tax corporate ts fell by 17.5 per cent during that hile real output fell 4.3 per cent. eal gross national product perfor- e was 0.4 percentage points lower e 3.9 per cent drop originally rted for the first quarter of 1982, ly because personal consumption nditures and federal government ases were revised downward.

ut the corporate profit figures were isingly low, even though declines een predicted. According to the merce Department, the quarterly -tax drop was the largest since the er cent decline in the second quarter 80. And, prior to that, there had een a larger deterioration in profits hey fell 21.7 per cent during the uarter of 1953.

or all domestic industry, corporate s from current production dropped \$ 177.6 billion in 1981's fourth er to \$ 149.9 billion. That figure een \$ 195.7 billion in the third er of last year.

Industrial production drops

roduction by the nation's factories mines, reflecting the continuing sion, fell in last May for the eighth h in the past nine. Total industrial ut in May dropped by an estimated er cent from its April level, despite t strength in auto assemblies, accord- o the report.

The new report indicates that the sion will not end in the second er," said Allen Sinai, a senior vice dent with Data Resources Inc. "We kely to see another month or two all declines in production." One f how seriously the nation's indus- ector has been affected is that the f industrial production has now back to where it was in the begin- of 1978.

ow that the inflation in America is ng off, why are interest rates not ing? Inflation has dropped from 2 per cent or 13 per cent rate of

January 1981 to an underlying rate of about half of that. The shift from an easy-money policy by the Federal Reserve Board to a policy of gradual restrained growth in money supply is probably the single most important influence on the decline of inflation. The Federal Reserve Board says it intends to hold the growth of M1 — currency plus checking deposits — to a range of 2½ per cent to 5½ per cent between the 1981 fourth quarter and this year's fourth quarter.

The interest rates are high in America because money markets are not convinced the US government will stand fast against inflation and will curb spending. Washington policy-makers and money experts blame high rates on the huge federal budget deficits.

The biggest reason interest rates have not fallen from their lofty levels is the investment community's fear that even though inflation is easing, it has not yet been tamed. Aggravating these worries are doubts that the Federal Reserve Board will continue to keep the lid on the growth of money supply. Moreover, brisk demand for short-term credit by both business and government and the phase-out of interest rate ceilings of savings account have added pressures for high interest rates.

Thus, skepticism about inflation, the threat of triple-digit federal budget deficits, heavy demand for short-term credits and escalating savings yields are working together to brake the long-awaited slide in interest rates.

There is a consensus among economists that short-term interest rates are headed lower now. Citibank, America's second largest bank, has just reduced its prime lending rate by half point to 16 per cent signalling to economists that interest rates will continue to fall at least for the next few weeks. Other banks are expected to join Citibank in lowering the rate.

Because of the sharply lower inflation and deep recession, the Reagan Administration had been predicting lower interest rates for months. Many economists believe that the prime rate should be at 11 per cent or 12 per cent but uncertainty over the outlook for inflation and fears of heavy borrowings by the US Treasury apparently have kept it high.

There is a widespread forecast that, with the rates where they are, the expect-

ed economic recovery this summer will be anaemic and will peter out quickly. The upturn will be "relatively weak" to moderate in the third quarter. As a result, high unemployment will continue through 1983 and inflation will remain at low levels.

Highest unemployment rate

In May 1982 the United States recorded its highest unemployment rate in more than four decades — 9.5 per cent of the labour force — amid signs that joblessness will get worse before it gets better.

Not since June of 1941, when the US was still suffering from the effects of the Great Depression, had this nation experienced an unemployment rate as high as the level for last May. Taken another way, the number of workers out of jobs — 10.5 million — was the highest since 1938.

The sharp rise in the unemployment rate to the highest level in 40 years, reflects the continued weakening of the US economy, and poses sticky political problems for the Reagan Administration. Several private economists expect the jobless rate to rise further over the next few months, and a few predict a rate of 10 per cent or more. In addition, many economists contend unemployment will stay in the 7 per cent to 8 per cent range, which is historically high, for the next two to three years.

The latest figures, which include record unemployment rates for adult men, blue-collar workers, blacks and teen-agers, makes the Reagan Administration increasingly vulnerable to Democratic charges that President Reagan's economic programme is tilted toward the wealthy.

And because improvement in the jobless rate often lags behind an upturn in the economy, unemployment may still be high during the coming November elections, even after the expected midyear recovery has taken hold. "This is very bad news for Republicans and bad news for the country," said an aide to a Democratic senator. "But it is good news for the Democrats."

Meanwhile, as the recession continues to take its toll, more and more companies in the USA and Canada are laying off workers. Recently, the layoff moves affected more than 5,000 workers from Montreal to Houston, in industries as diverse as railroads, computers, steel and oil services.

COVER STORY

RECESSION IN THE WEST: RISING UNEMPLOYMENT IN FRANCE

From CYRIL D'SOUZA

PARIS

UNEMPLOYMENT in France has been showing a consistent upward trend since 1974 and is not supposed to have reached the peak. Different explanations for this prolonged unemployment have been put forward: the successive hikes in oil prices, high interest rates in the USA and increased competition from East Asian countries. Every short-term effort at reactivating the economy spurs inflation and does not diminish unemployment so that the Keynesian trade-off between unemployment and inflation does not seem to prevail. It would seem that the present unemployment is really structural, the existing industrial structure rendered non-optimal by the increase in energy prices. It is against this background that one ought to appreciate the Socialist Government's commit-

ment to high technology to modernise the French industry and make it competitive in world markets.

A quick look at the unemployment statistics reveals the seriousness of the situation. Since 1960 there has been a marked increase in the work force due to the post-war baby boom and to women's participation in the labour market. Correspondingly, business activity also rose, absorbing the new and better qualified work-force. But the year 1974, with the first oil crisis, marked a turning point.

During the six years (1968-74), there was a net creation of one million jobs and an increase of 1,828,000 salaried people. The corresponding figures for the following six years were 360,000 and 563,000. The total weekly economic activity, measured in manhours climbed from 535 million in 1968 to 587 in 1974, an

annual increase of 1.6 per cent; it fell to 567 millions in 1975 and has been fluctuating around this figure ever since.

The gross value-added activity of the agricultural industry which is a good indicator of the level of the economy around the country increased 5.1 per cent a year between 1968 and 1974 while for the following six years it averaged only 3 per cent/year; correspondingly industry realised product gains of 5.1 per cent a year during the first six-year period and 3.2 per cent during the second six year period.

Stock and flow analysis helps us appreciate the movements in the labour market from the unemployment angle. The inflow of job seekers is classified according to the causes of unemployment: new lay-offs due to economic reasons, non-renewal of contracts, entry of new generations into the work force. The outflow consists of people retiring or resigning and of immigrant workers going home.

Actually, serious unemployment in France dates since 1963. Since that time when the number of unemployed was 275,000, there has been an annual increase of 20,000 for a decade, to reach

DEVALUATION OF FRENCH FRANC

From OUR SPECIAL CORRESPONDENT

PARIS

FRENCH Government devalued the franc by 10 per cent on June 14 and imposed a wage-price freeze till October. It hopes thus to bring down the current annual inflation rate of 14.3 per cent to below 10 per cent in 1982 and below eight per cent in 1983. It has decided to trim the budget deficit to three per cent of GNP.

The devaluation took place within the European Monetary Union, where the dominant currency is the German mark. Under the regime of floating exchange rates among open economies, the currency of a country with trade deficits, budget deficits, wage hikes and high inflation will be constantly under attack. This happens to be the case of socialist France, which gave till now a certain priority to reducing unemployment and improving the purchasing power of the socially disadvantaged. But there was the lack of a coherent

credit-worthy policy with respect to the franc, especially in the context of a steep appreciation by 36 per cent of the US dollar since the autumn of 1980.

During 1981 France had a current account deficit of 40.6 billion francs against 33.1 billion in 1980; a deficit of 14.6 billion in the movement of short-term capital and an outflow of 11.4 billion long-term capital. As a result there has been a 60 per cent drain on the French official reserves with the IMF and the European Monetary Union.

The French Finance Minister, Mr Jacques Delors admitted that any devaluation meant the failure of an economic policy. However, it was a short-term economic measure and, if used with other economic instruments like wage-price freeze, may set the economy right in the long-run. For, it increases immediately in the world the competitive capacity of French goods markets and promotes exports, discour-

age, imports and thus improves the trade balance. Unfortunately, the French franc is caught between a strong mark and a strong dollar and its devaluation may not bring in all these advantages.

For 37 per cent of French imports are paid in US dollars (including energy 27 per cent, raw material six per cent) and these are inelastic. Hence, the devaluation means an increase in the bill of France. Again, as French production costs are higher than those of Germany even after the devaluation, German electrical goods and cars have a competitive edge even in the French market. The French trade balance is always negative with respect to Germany and the USA and is positive only with respect to only developing countries.

All this means, finally, for a socialist government austerity at home: no creation of civil servant jobs to reduce unemployment, no monetary expansion to fill the budget gaps. Taxing industry would mean many bankruptcies.

total of 500,000 in 1974. This unemployment level was considered exceptional and did not attract serious attention. In 1974, just when the post-war babies began entering the labour market, the first oil crisis struck, making automatic equilibrium in the labour market impossible.

Economic lay-offs

At the same time, some sectors of the French economy began losing their comparative advantage especially to the newly industrialising countries of Asia. Labour-intensive industries like textiles, apparel, construction work, metal and laundry works began losing both their internal and external markets. The economic lay-offs due to the closing down of these industries hover around 10,000 to 300,000 a year, accounting for 12.5 per cent of the jobless.

A close look at the textile industry reveals what went wrong. This industry had to make a transition from an artisan-oriented economy to an industrial economy. In France, it was an export-oriented, labour-intensive industry using large man power. It imported raw material like cotton, wool, jute and exported finished goods. Balance of payments was always favourable in this sector: 2.8 billion francs in 1959, 3.3 billion francs in 1970. In 1980 it showed a net deficit of more than 2 billion francs. Its share in industrial production fell from 12 per cent in 1970 to 8 per cent in 1980.

No new investments were made to modernise the industry. Consequently, it lost its competitive edge. And the value

of the imported goods sector increased 40 times between 1960 and 1980: an annual increase of 18 per cent between 1960 and 1970, 23 per cent between 1971 and 1973 and 9 per cent since 1974. Result: a loss of 370,000 jobs in this sector alone.

Faced with this crisis the government had no solution; it preferred to fight inflation instead which had moved from 5.9 per cent in 1973 to 10.7 per cent in 1979. To those laid off it offered substantial indemnities; to the fresh job seekers, employment arrangements of short term duration. Temporary jobs of 4 to 6 weeks were provided for and around half a million youth are given temporary jobs every year. More and more protectionist voices are heard to safeguard the internal market.

It would seem that there is no ready-made solution at hand to tackle stagflation. Over the years, the French economy has become very open and any long term solution can only be a common one for the industrial countries.

At the same time there is no doubt that the French industrial structure is undergoing profound changes to meet world competition in some key industries like biotechnology, electronics and communications. The recent nationalisation of large industrial houses and of banks is meant to bring about a closer coordination between government and industry, after the Japanese model, a model which finds favour with the present socialist government.

Housing was perhaps the most prominent victim of the upsurge in interest rates. Following an almost continual decline from the activity peak reached in 1976, residential construction bounced back from late 1980, increasing by almost 25 per cent in volume in the first half of last year. Despite exceptionally low vacancy rates across the country, activity collapsed subsequently. The impact fell mainly on single dwellings, as multiples were assisted by government support programmes; indeed, anticipation of the expiration of the MURB (Multiple Unit Residential Building) programme at year-end produced an upturn in starts during the last two months.

The upswing in business non-residential investment which began in 1978 suffered a set-back in the third quarter of 1981 as outlays on machinery and equipment receded sharply. Although a recovery occurred in the final quarter, the sharp deterioration in manufacturing industry's operating conditions and in the business sector's assessment of market prospects would suggest a more substantive weakening in the underlying trend. Persistent inflation as such may also have had a deleterious effect on investment plans. However, certain longer-term projects, which are less sensitive to cyclical considerations, helped maintain an element of buoyancy. In particular, mention may be made of projects related to energy distribution and product derivatives, (pipelines and petrochemicals), the on-going process of industrial restructuring induced by energy price rises and expansion of metals-mining capacity. The substantial drawing-down of inventories in late 1980 in conjunction with the pick-up in demand gave way to a reconstitution of holdings last year. Indeed, by the third quarter, as final demand declined there was probably an important element of unintended stocking in certain sectors. Cut-backs in the final quarter were largely limited to the retail level as the manufacturing inventory/sales ratio continued rising well above trend.

After rising by 5.7 per cent in the first half of 1981, total output fell by 0.8 per cent in the second half. The decline in industrial production was particularly marked, with the seasonally-adjusted level of output in the final quarter down by some 7.1 per cent on the June quarter. Output of the important mining industry dropped sharply, reflecting not only a temporary cut-back in Alberta oil pro-

Continued on page 13

CANADA CONSUMERS CAUTIOUS

PARIS

IN the recessionary impact being felt by the Western world, what is the position of Canada? An economic survey of the country, published by OECD recently, provides an answer. The survey says that for the year as whole the volume increase in private consumption (1.7 per cent) fell well short of the growth in real disposable income (3.3 per cent), with the personal savings ratio reaching its highest level for at least two decades. Apart from the usual lag between income and outlay developments, other considerations also appear to have influenced consumer behaviour; i.e., persistently

strong inflation, shifts in the composition of household income, a high and (during most of the year) rising level of interest rates as well as a marked deterioration in labour market conditions from the autumn. In addition to their impact via wealth effects, movements in nominal interest rates possibly influenced outlays on certain durables directly and stimulated savings for mortgage repayment and other purposes. The abrupt weakening in labour market conditions probably reinforced consumers' precautionary attitudes, with sentiment surveys revealing an unusual degree of pessimism on the part of consumers. Retail sales remained weak in early 1982.

LETTER FROM PAKISTAN

KARACHI

FOR Pakistan, the financial year 1982-83, beginning July 1, constitutes a bridge between the completion of its Fifth five year plan and the launching of the Sixth. It, therefore, is a year of "special significance" as the officials in the Finance Ministry and the Planning Commission prefer to call it. So is the new budget which the Finance Minister announced on Monday, June 14 breaking the years-old tradition of budget announcements on week ends. Earlier, the budget was expected on June 10 (Thursday) but the announcement had to be postponed as the Aid-to-Pakistan Consortium met on

not elaborate upon. He said, "*Ushr* will be charged and collected on compulsory but self-assessment basis. It would be collected from the agricultural produce of the land of a landowner, grantee, allottee, lessee, leaseholder or landholder at the rate of 5 per cent of his share of the produce, with the added facility that an *Ushr guzar* may reduce his crop value by upto 25 per cent as cost of production allowance. Non-Muslims, non-Pakistanis, those excluded from the definition of *Sahib-e-Nisab* (with wealth status) and those whose produce is less than 948 kilograms of wheat or its

farm lobby managed to convince authorities that they were paid much for their produce than the international prices of agricultural produce. *Ushr* now being regarded as the first major step toward agricultural income taxation. Since its basis would be produce, proceeds would vary from year to year.

Yet another significant measure in the budget is the five per cent increase in the import duty overboard, on all items except on allowed baggage brought by overseas Pakistanis. The floatation of Pakistani rupee in January this year depreciated it against the dollar by about 20 per cent. Another five per cent increase in import duty makes it 25 per cent. The sales tax which is levied on C and F value plus duty will also proportionately increase making the imports of machinery and raw materials costlier. It will result in industrial costs escalating and a major price push. The Finance Minister said that the five per cent increase was intended to discourage imports but the 20 per cent higher cost of the rupee had already discouraged imports, the volume of which had gone down and adversely affected last year's revenue receipts.

What affected the revenue

The revenue position in the 1981 financial year was affected because of there was an erosion in the revenue base of the import duties arising from world recession, combined with the effect of our own success in import substitution. There was a shortfall of Rs 268 crores in the collections under import duties and of Rs 65 crores in the related sales tax receipts; (ii) export duties were first to be affected by world recession which reduced both the prices and quantity of cotton and rice exports. Export duty collections declined to less than the estimated level, involving a loss of Rs 44 crores; (iii) Rupees cost of crude petroleum and POL products increased as a result of the appreciation of the dollar, though the official dollar price of oil remained unchanged. This higher cost was not passed on to the consumer during the year. There was a budget loss of Rs 62 crores on this account; (iv) the geopolitical situation in the region and the heightened security concerns made it imperative for the country to strengthen its defence capability. There was an increase of seven per cent in defence expenditure involving Rs 100 crores during the current year, over

ANOTHER CONSERVATIVE BUDGET

From KHALIQUE ZUBERI

that date to decide upon Pakistan's request for economic assistance. The total expected available foreign assistance in the 1982-83 fiscal year is Rs 1573 crores, whereas the total annual development plan would cost Rs 3146 crores. The balance is to be met from domestic resources.

On the revenue side the net federal receipts of Rs 4720 crores would provide a mere Rs 30 crores surplus, after meeting revenue expenditure of Rs 4690 crores. But together with a Rs 3146 crore development programme and after providing Rs 248 crores in relief to government employees, the budget showed an overall deficit of Rs 1062 crores, which the Finance Minister proposed to fill through additional taxation of Rs 492 crores leaving a gap of Rs 570 crores to be filled through deficit financing. The relief to government employees in the shape of enhanced dearness allowance has been debated in view of the government's claim of a low rate of inflation of less than eight per cent last year.

A major decision in the new budget is the introduction of five per cent *Ushr* (*Tithe*) on agricultural produce which would be applicable from the next rabi crop. Two years ago, the government had promulgated the *Zakat* and *Ushr* ordinance, but implementation of the *Ushr* part of it continued to be postponed for what the Finance Minister described as a "variety of reasons" which he did

equivalent in value would not be subject to compulsory levy of *Ushr*." Such exemptions would also be available to those religious sects who file a declaration claiming that they are not obliged to pay the whole or any part of *Ushr* in the manner prescribed under the law. Tenants would be excluded from the compulsory levy of *Ushr* under the present scheme of collection. No land revenue will be levied on land on the produce of which *Ushr* or contribution in lieu of it has been charged on a compulsory basis.

Rural Infrastructure

According to calculations made so far, *Ushr* would yield about Rs 100 crores whereas land revenue, hitherto collected by the provincial authorities, yields Rs 45 crores. The proceeds of *Ushr* will be collected and operated by the local *zakat* committee which would signify management of this part of revenue at the grass root level. While President Zia's government is committed to the Islamisation of the economy, it is argued that *Ushr* implementation should have been done earlier. As the need for building rural infrastructure has increased, with increasing incomes in the hands of the farming community through higher support prices or larger volume of home remittances, the income from *Ushr* will help in meeting that demand. In Pakistan, the demand to tax farm incomes has been long and persistent but no government ever could levy tax on agricultural incomes as the

LETTER FROM PAKISTAN

ove the original budget estimates.

The delinking of the rupee has also t the cost of debt servicing sky high. ease of foreign debts, the servicing rges will increase by 31 per cent and ayment of principal of foreign debt 50.8 per cent. In view of the rising ot repayment liability, it has become ecessary that more reliance be placed domestic resources than on outside onomic assistance. While the challenge sts for budget makers to raise addi- nual revenue locally, there are no instru- nts of taxation available. Or at least t is what one gathers from the pattern taxation. Except for widening the base a particular class of tax payers or sing the rates, the new budget does t add any new instrument of tax be- use none is available. Only farm in- mes offered a potential for further ation and it is in this area that *Ushr* s been introduced. The rest of the dget is, it seems, tight rope walking.

Prices go up

Barely days after the announcement of the budget, the price line started shooting up as fresh taxes like higher duties on petrol and cigarettes, coupled with a five per cent overboard increase in import duty resulted in an overall increase in the price of items like tea and *pan*. Drugs, it was reported, became costlier by 30 per cent. The salary in- crease to government employees also played a role in raising prices. The Finance Minister said that Pakistanis as a nation consume tea, cigarettes, betel leaves and nuts worth Rs 1000 crores every year which they should cut down. But it appears that both government and moneyed people are outbidding each other in conspicuous consumption — each one telling the other to curtail consumption, without effect.

The president of the Karachi Chamber of Commerce and Industry in a statement said, the budget has laid greater emphasis

on mobilising revenue rather than on initiating and strengthening the growth generating forces. The budget's revenue-oriented approach is, however, greatly reflected in a five per cent import sur- charge across the board; even the items already enjoying duty-exemption have not been spared; the reduction in duty applies to items whose imports are either nil or negligibe. The surcharges parti- cularly on industrial inputs and essential consumer items would largely contribute to cost-price escalation. "The incentives and facilities envisaged in the budget for industrial growth and investment indeed did not conform to the declared policies and promises made to re-enforce the role of private enterprise in the national economy. The Protection has been specially provided to the state-owned industries. The quantum of general incen- tives and facilities is hardly adequate to achieve a major break-through in the ambit of investment and production," he observed.

OVER STORY

Canada: Consumers cautious

oncluded from page 11

action but also weak United States demand for gas and the worldwide slack- ness in metals markets. The manufac- turing sector has also suffered severely, with capacity utilisation rates dropping to their lowest level since 1961. The wood and automobile industries in particular have been affected not only by domestic market conditions but also by depressed United States demand. Restructuring of the automobile industry towards pro- duction of smaller vehicles has been proceeding on schedule, but domestic manufactures suffer from a distinct pricing disadvantage. Despite a 3 per cent increase in registrations last year, domestic output fell to its lowest level since 1967 as sales of North American models declined by around 14 per cent, while foreign car sales rose by some 37 per cent. Furthermore, steel industry operations were interrupted by a protracted strike. Construction activity revived sharply in 1981, reflecting mainly the buoyancy of residential investment in the first half but buttressed also by various longer-term industrial construction

projects. After slumping to a 21-year low in October, housing starts subsequently revived in anticipation of the MURB programme's termination and in response to some easing in mortgage interest rates.

Labour market conditions remained buoyant up to August end, despite a subsequent market deterioration, total employment increased on an average in 1981 by 2.6 per cent — the highest rate in the OECD area. This went hand in hand with some improvement in pro- ductivity performance, although the overall measured increase (0.4 per cent) was still well short of the historical average and below that for the overall OECD (0.8 per cent). While job creation in the goods-producing sector accelera- ted, reflecting a sharp turnaround in the construction sector, the shifts in labour abrupt even in the trade sector. No doubt, the high level of interest rates militated against maintaining production for stock- piling, but corporations also appear to have taken a relatively pessimistic view on the likelihood of an early upturn. Full-

time and male employment have borne the brunt of the adjustment as part-time and female employment continued to rise on average in the second half.

The seasonally-adjusted unemploy- ment rate generally drifted downwards until late summer to a level in line with that prevailing at the previous cyclical low two years earlier, which had remained, however, well above (by some 2 percentage points) the 1974 low. The subsequent deterioration in labour market conditions pushed the rate up to 8.6 per cent by year-end, despite a reduction in average working hours and participation rates. Young people were the most severely affected, their unemployment rate rising by some 2.6 percentage point to 14.8 per cent compared with an overall average increase of 1.6 percentage points. While in relative terms job losses between August and December were greatest in Quebec and the Maritime Provinces, these regions also experienced the largest adjustment in participation rates, which limited the increase in measured un- employment.



(c) "Meeting new challenges through human resources development—key to APSFC's success"



R. Surender Reddy MLA
Chairman

Excerpts from Chairman's address to the Shareholders of Andhra Pradesh State Financial Corporation at the 26th Annual General Meeting held on 29th June, 1982.

Gentlemen,

I have great pleasure in welcoming you to the 26th Annual General Meeting of our Corporation. This year commemorates 25 years of service of your Corporation in the cause of industrial development of the State. I am happy to inform you that the Corporation has held the coveted Number ONE position among all the SFCs in the country for the 3rd year in succession in terms of sanctions, disbursements and recovery. This, indeed, is no small achievement considering the level of industrial development in the States like Maharashtra, Gujarat, Tamilnadu etc. Now is the time to chalkout a positive path with perspective vision for a prosperous future.

HUMAN RESOURCES DEVELOPMENT

APSFC has always recognised that development is not a product of finance alone. It has greater depth and added dimensions, it is an outcome of vision and enterprise, sustained, organised effort and deep passion for human well-being. The epicentre of developmental activities, therefore, rests in proper human resource development, for this

happens to be the only input which can influence every other attribute of development.

APSFC prides in calling itself a development bank—a bank for development of human resources. We, at APSFC, strive to consolidate human resources and channelise them into right industrial ventures. Human resources development, as we perceive, is the development of professional skills to continuously guide the process of development itself. To this end, we have been able to develop a core of personnel within the Corporation who lend a wide range of professional services. During 1981-82, we have been able to crystallise as many as 188 industries. With an aggregate investment outlay of Rs.138.87 crores, these industries will generate direct employment for 35,512 personnel besides providing indirect employment to thousands of others.

ECONOMIC SITUATION

On the national scene, 1981-82 was a year of consolidation and cautious growth. GNP recorded an increase of 4.5% on top of 7.5% in 1980-81 from a fall of 4.8% in 1979-80. Industrial production during 1981-82 rose by over 9%. Some of the notable developments of the last year relate to a remarkable improvement in the infrastructure group of industries which, in the past, have been acting as a major constraint in industrial growth. As per the Sixth Plan, combined gross investment of Private Corporate and Co-operative Sectors in the Sixth Plan would be Rs.19,582 crores of which the Private Corporate Sector investment will be Rs.17,582 crores at 1979-80 prices. To achieve the overall plan target, the gross investment in the Private Corporate Sector has to grow annually from Rs.2,760 crores in 1980-81 to Rs.4,370 crores in 1984-85. Considering the level of inflation in the first two years of Sixth Plan and assuming that the rate of inflation from fiscal 1982-83 is at an average of 5%, gross investment in the Private Corporate Sector will have to rise to Rs.4,500 crores in 1982-83 and to Rs.6,900 crores by 1984-85 from Rs.2,712 crores per year in the first two years of the Sixth Plan. Such a high level of investment in the remaining period of the plan would call for constructive changes in the fiscal and monetary policies. The Sixth Five Year Plan envisages the manufacturing sector of the Indian economy to grow at the rate of 7.6% in terms of gross value of output. This growth target calls for mobilisation of such vast resources that the task before the manufacturing sector as well as the term financing institutions, more particularly SFCs, being the premier term-lending institutions in the States, is quite challenging. SFCs will have to be provided the required support by IDBI through its refinance scheme to a significant extent and the State Govt. and IDBI will have to liberally contribute to the share capital and allocation of bonds.

REVIEW OF OPERATIONS

The financial assistance sanctioned, disbursed and recovery of overdues during 1981-82 have touched an all-time record since inception of the Corporation. The gross financial assistance sanctioned by the Corporation during 1981-82 stood at Rs.61.86 crores compared to Rs.47.38 crores during 1980-81. The disbursements made during the year were also higher at Rs.37.41 crores compared to Rs.30.65 crores in 1980-81. The cumulative sanctions and disbursements as on 31st March, 1982 stood at Rs.271.31 crores and Rs.167.46 crores respectively. The loans and advances outstanding as on 31st March, 1982 have gone up to Rs.127.60 crores from Rs.100.03 crores as at the beginning of the year. The performance of the Corporation in the area

recovery during 1981-82 was also very resressive. Out of Rs.33.50 crores collectable towards principal and interest, the Corporation realised Rs.21.33 crores during 1981-82. percentage of overdue to the loans outstanding as at 31st March, 1982 was only 9.5% compared to 9.8% at the end of the previous year.

DEVELOPMENT OF BACKWARD AREAS

The Corporation has been actively associating in implementation of the Prime Minister's 20-point economic programme, with particular reference to industrialising the backward areas and providing gainful employment and industrial opportunities to the economically weaker sections. During the year, the Corporation sanctioned an amount of Rs.27.53 crores to units located in backward areas, compared to Rs.23.19 crores in 1980-81, recording an impressive growth rate of 18.8%.

ASSISTANCE TO SMALL AND TINY SECTORS

The small and tiny sector units received utmost attention of the Corporation. During the year, an amount of Rs.45.79 crores was sanctioned to 96 small and tiny sector units, compared to Rs.28.32 crores in 1980-81. This constitutes a 15% increase in terms of number of units and 74.34% increase in terms of amount sanctioned during the year.

ASSISTANCE TO SPECIAL SCHEMES

The Corporation has designed a number of innovative schemes over the years for the benefit of the educated unemployed and to encourage various entrepreneurs. During the year, the Corporation sanctioned an amount of Rs.1.58 crores to 92 ventures promoted by educated, unemployed persons under the 'Self-employment Scheme' as part of the Ancillary Development Programme. The Corporation financed a record number of 50 ancillary units for an amount of Rs.3.27 crores during the year. The Corporation also sanctioned foreign exchange loans under the World Bank Line of Credit to 14 units for an amount of Rs.2.52 crores.

RESOURCES

The capital base of the Corporation has been impressively strengthened during the year. The additions made to the share capital by the State Govt. and IDBI during the year were Rs.4.20 crores. The share capital of the Corporation as at the end of 31st March 1982 was Rs.13.67 crores including Rs.3.67 crores 'Loan Pending conversion to Capital'. This substantial addition enabled the Corporation to raise the required funds from IDBI by way of refinance to meet its increasing commitments and thus achieve impressive working results.

ORGANISATION

With a view to extend more personalised services to the entrepreneurs, the Corporation during the year has opened Ranga Reddy Branch taking the total number of branches to 13. Further, the Corporation during the year, has opened three more Field Offices at Mancherla, Mahaboobnagar and Suryapet taking the total number of Field Offices to 11. During the current year, the Corporation is planning to open 3 more Branch Offices in the State by upgrading the existing Field Offices. As part of the man-power development programme, the staff training department of the Corporation has started functioning. The training department, besides imparting induction training to all the new recruits, has also started implementing orientation programmes to the personnel at various levels.

CHANGES IN THE BOARD

During the year, Shri D.V.S. Sastry, an elected director representing Insurance Companies and Shri S.K. Nathan, an elected director representing Banking Companies have resigned from their directorships and in their places Shri N.V. Parameswaran and Shri M.V. Subramaniam respectively have been elected. During the year, the IDBI nominated Shri G. Krishna Murthy and Shri V.V. Subba Rao in the places of Shri V.J.B. Andrews and Shri G.R. Kulkarni.

The RBI nominated Shri N. Dhanvandrani in the place of Shri M. Natarajan. I would like to place on record my sincere thanks and appreciation of the services rendered by the former directors during their tenure on the Board of the Corporation. I wish to express my gratitude to my colleagues on the Board for their unstinted cooperation and support.

I take this opportunity to compliment Shri A. Valliappan, Managing Director of the Corporation for his dynamic, mature leadership and above all, his utmost sincerity which have largely contributed to the excellent progress made by your Corporation and in retaining the prestigious Number ONE position among all SFCs in the country for the 3rd year in succession.

I would also like to place on record my sincere thanks and appreciation of the devoted services of the General Managers Shri K. Narayana Rao and Shri R.P. Modi and all other officers and employees of the Corporation in continuing to achieve outstanding results.

ACKNOWLEDGEMENTS

I would like to express my deep appreciation of the excellent cooperation and guidance received from the State Govt. and the Chief Minister in particular. I would also like to place on record my sincere thanks to the Chief Secretary, Industries Secretary and Finance Secretary to the Govt. and other officers of the Secretariat for their excellent support which has been a source of inspiration to the Corporation. I take this opportunity to reassure the Govt. that, as in the past, the Corporation will continue to implement wholeheartedly its objectives of industrialising the less developed areas of the State and in rendering generous financial assistance to the economically weaker sections, pursuant to the 20-point economic programme of our Prime Minister, Smt. Indira Gandhi.

I would like to thank LIC and other Banks who have liberally subscribed to our bonds issues. I would like to express our gratitude for the valuable and timely support given by the IDBI in strengthening the capital base of the Corporation by providing liberal subscriptions and need-based refinance assistance from time to time which, to a great extent enabled the Corporation to honour its commitments and achieve excellent results.

I also express my deep sense of gratitude to the RBI, ICICI, IFCI, Directorate of Industries, APIDC, APSSIDC, APITCO, APIIC, DICs and Commercial Banks for their continued and active support.

Before I conclude, I express my gratefulness to the shareholders of the Corporation for the interest evinced in the Corporation's activities and performance and for the time you have been able to spare to be present here today.

HYDERABAD
29TH JUNE 1982

R. SURENDER REDDY
CHAIRMAN

This does not purport to be a record of the proceedings of the Annual General Meeting, but only an extract of the Chairman's Speech



Andhra Pradesh State Financial Corporation

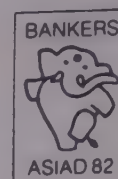
5-9-194, Chirag Ali Lane, P.B.No. 165,
HYDERABAD 500 001





Indian Overseas Bank

Good people to grow with



HIGHLIGHTS OF PERFORMANCE, 1981

- Global deposits and other accounts increased from Rs. 1506.4 crores to Rs. 1950.0 crores or by Rs. 443.6 crores.
- Deposits in India rose from Rs. 1174.2 crores to Rs. 1422.8 crores or by 248.6 crores.
- The Bank's growth rate in deposits in India between the last Fridays of 1980 and 1981 at 22.9% was higher than the System's (17.7%). The Bank's market share of deposits more than doubled to 3.09% during 1969-1981. 29% of the Bank's deposits as of end 1981 came from Rural and Semi-urban branches.
- Advances expanded from Rs. 975.2 crores to Rs. 1338.1 crores globally and from Rs. 702.0 crores to Rs. 851.7 crores in India.
- In credit extension, almost all the national norms were met according to schedule. Advances to priority sectors crossed the Rs. 300 crore mark taking the ratio of priority credit to total credit from 35.0% to 37.3%. Agriculture absorbed 48.4% of priority credit. Small and marginal farmers received 56% of the direct lendings to agriculture. Advances under DRI Scheme continued to be above the 1% norm.
- In the execution of the District Credit Plans, the Bank surpassed the target by 72%.
- 78 new branches were opened in India during the year of which 71 (or 91%) were located in rural or semi-urban areas. Including the 11 branches abroad, the Bank had 897 branches as of end 1981
- Operating profits grew by 38.3% compared to 20.0% last year. Out of the net profit of Rs. 4.5 crores, Rs. 3.0 crores was transferred to Reserve Fund, taking the Capital Funds of the Bank to Rs. 20.7 crores.

CONDENSED STATEMENT OF CONDITION

Rs. crores

CAPITAL & LIABILITIES			PROPERTY & ASSETS	
As on 31.12.1980		As on 31.12.1981	As on 31.12.1980	As on 31.12.1981
10.0	Capital	10.0		
			231.8	Cash in hand & with Banks 270.2
7.7	Reserve Fund & Other Reserves	10.7	2.9	Money at Call & Short Notice 2.0
1506.4	Deposits & Other Accounts	1950.0	392.0	Investments 444.8
153.0	Borrowings	174.9	975.2	Advances 1338.1
33.2	All other Liabilities	46.6	108.4	All other Assets 137.1
238.6	Contra Accounts	279.1	238.6	Contra Accounts 279.1
<u>1948.9</u>		<u>2471.3</u>	<u>1948.9</u>	<u>2471.3</u>

Germany-educated Dr V.J. Patel, who took up a lucrative teaching job at the Institute of Technology in Pilani, taking up agriculture in his 60-hectare farm at Surendrabagh in Sihor taluka, says that farmers would be prepared to supply enough fuelwood to the thermal power station, paper mills and other units at prices determined on the basis of the calorific value of coal available in Bhavnagar." He is confident that wood can be produced by farmers can effectively compete with the coal hauled from Madhya Pradesh mines anyway.

As part of the massive afforestation programme aimed at turning Gujarat "green", the State Government has decided to grow 20 crores new saplings over the State during the next two months. Of this, about 10 per cent would be planted in Bhavnagar district alone, where about 9,500 farmers raised 1.04 crore trees last year.

The social forestry scheme has more than one objective. Besides being an insurance against cyclical droughts, it is expected to serve to rehabilitate the soil from salinity ingress, mainly in Saurashtra districts. Refuting the myth that high

density eucalyptus plantations lowered the subsoil water table, Dr Patel says that the truth is on the side. Eucalyptus trees, which send down their roots several metres vertically down, especially under conditions of high density cultivation, would serve to bore holes into hard soils and help in recharging the water tables. Besides, forming a thick umbrella-like cover, the eucalyptus plantations slow down evaporation of water from soil, he claims.

Instead of eucalyptus, if one grows subabul (Hawaiian Giant) the farmer would not only get timber, but would get fodder for his cattle from the green leaves and seeds, which are highly nutritious. Even in drought years, cattle would not have to starve.

With increased emphasis on afforestation in Gujarat in recent years, one has also noticed perceptible changes in ecological conditions giving rise to more abundant and timely rainfall in the region. Perhaps, the rest of the country would do well to accept a few ideas like "social forestry", "farm forestry" as has been done by the enterprising Gujarat.

in the State. Six hydel projects of 1,513.5 mw were submitted during the past two years to the Planning Commission and Central Electricity Authority. So far, three major projects, namely, Unchahar, Anpara 'B' and Maneri Bhali Stage-II have received clearance. Anpara 'B' and Singrauli projects have been taken up on a priority basis with Japanese and British collaboration, respectively.

The approval of two more projects — 3×210 mw Roza (Shahjahanpur) and 3×210 mw Jawaharpur (Etah) is expected soon. Meanwhile, survey is being carried out to tap an estimated hydel potential of 20,000 mw flowing in Himalayan rivers in the north and, thermal potential of 10,000 mw stored in south-eastern coal belts in the State.

It has also been decided by the State Government to allow power plants in the private sector for which concrete proposal from the Kanpur Chamber have been invited. A list of power plants which the State Electricity Board wants to dispose of has been announced by the Board. Mr Hasan said that the Board was prepared to receive offer from the Kanpur Chamber or other persons interested in taking up those plants.

The Merchants' Chamber of UP has welcomed the State Government's concept of 'pioneer units' and 'prestige units'. But, in its opinion, the quantum of qualifying investment of Rs 25 crores for prestige industries alongwith ancillary development is 'very stringent'. Mr Hasan has explained that the entire state has been considered backward and, therefore, this status has to be accorded only where substantial investment is taking place and ancillarisation also happens. However, for different types of industries, different norms of ancillarisation will be applicable, e.g., what is applicable to mechanical industries may not be applicable to chemical industries. UP is the only state in the country which has accorded the status of prestige units for investment of Rs 25 crores and above.

Regarding recovery proceedings instituted by financial institutions in some cases, the Minister said that in all genuine cases where industry was becoming 'sick' due to no fault of the management, a sympathetic view was being taken by all the financial institutions and all the individual cases might accordingly be brought to the notice of the concerned Managing Directors for a solution.

UTTAR PRADESH Stock exchange for Kanpur

LUCKNOW

A stock exchange on the metropolitan pattern is likely to be opened at Kanpur. The UP Government has taken the matter with the Central Government. It has pointed out that opening of a stock exchange at Kanpur will enable public participation in the equity shares of the companies based in UP and expansion of the money and investment market in the State.

Addressing the 50th annual general meeting of the Merchants' Chamber of Kanpur, Mr Niaz Hasan, Industries Minister, dispelled the doubt about central projects in UP. The Government of India has agreed to set up a Rs 500 crore aromatic complex in the Central sector near Hathras in Aligarh district. The Central Government has also agreed to the location of four gas-based fertilizer factories in UP, each with an investment of Rs 500 crores.

According to Mr Hasan, two private companies have also agreed to take up two

of these four projects. They have submitted their offers in this regard to the Central and UP Governments. Expectations are that the work on the proposed Aromatic Complex and fertiliser factories will start in the new two or three months.

Improved power generation

Meanwhile, several measures being taken by the State Government have resulted in showing good results and the power position has been improving progressively. The total installed capacity which stood at 3,145 mw in 1979-80 has now touched the mark of 3,694 mw — thermal 2,482 mw and hydel 1,212 mw. The total generation rose to 11,348 mw during 1981-82 from 10,124 mw in 1979-80. An all-time high thermal generation was achieved in January this year. Except for scheduled cut in supply to industries during the peak hours, power is now being supplied almost round-the-clock to rural areas and towns of UP.

Efforts are continuing to bridge the gap between demand and supply of power

Company Meeting: Hindustan Lever Limited **A PERSPECTIVE ON EDIBLE OILS**

**Speech delivered by
Dr. A.S. Ganguly,
Chairman,
Hindustan Lever Limited,
at the Annual
General Meeting
held at Bombay on
Friday, 25th June, 1982**

INTRODUCTION

India, like other petroleum-importing economies, has been concentrating its efforts for the last ten years on augmenting foreign exchange earnings to pay for mounting petroleum imports and exploring new energy sources. The large national issue prior to this was self-sufficiency in food, which the country has spectacularly achieved in the case of cereals. However, in two other areas, much remains to be done — the production of pulses, and edible oils and fats. These are so important that the Government has included them in its list of national priorities.

The reason why I have referred to petroleum hydrocarbons and food is because these two, along with the population problem, tend to dominate the economic and popular thinking in this country. I have chosen to highlight the issues involving edible oils, not only because it is a significant part of Hindustan Lever's business, but also an important national issue; and unless we continue to highlight the problems involved and seek solutions, the nutritional and economic consequences will become progressively intractable.

This is not the first time that a Chairman of this company has chosen the AGM to review this rather important subject. It was discussed at length by Mr. S.H. Turner in 1959 and Mr. T. Thomas in 1974. More recently, an integrated strategy for increasing the production and consumption of oilseeds and oils in our country was made by Dr. M.S. Swaminathan, an eminent agricultural scientist.

Besides, a number of other recommendations have been made at various conferences and quite a few of them have found their way into agricultural and commercial practice. For example, a project for the development of a cooperative structure for increasing oilseed supplies through an integrated programme of production, processing and marketing is being implemented by the National Dairy Development Board.

However, in spite of all these efforts the gap between demand and supply is widening at the fairly low per capita consumption in the country. This has led to a rise in imports.

During 1979-80 and 1980-81, the country had to import close to a million tonnes of edible oils per annum valued at Rs. 600 crores. If one projects this into the rest of the decade, the import bill for edible oils alone would be staggering. Production would need to rise by about one-third to eliminate imports.

While one can debate our ability to be self-sufficient in oils and fats, there can be no alternative to increasing the country's edible oil production significantly. There has also been near unanimity on the ways to augment availability. Yet, the results have not come up to expectation. All the recommendations made by my predecessors and experts in the field are as valid today as when they were made. Is it possible to bring about a quantum improvement in oilseed production and availability in the country? From the point of view of foreign exchange outflow as well as malnutrition resulting from low fat intake by the population, the problem is becoming so critical that it is not amenable to marginal solutions.

Any solution to the problem must take into account a combination of enhanced production with reduced dependence on imports. To assess the opportunities which obtain in the edible oil economy, and develop a possible strategy to bring down the burden of imports and improve availability, I shall discuss the topic in four parts:

- i) A brief review of the current status of oilseed production
- ii) Some economic and nutritional aspects of the problem
- iii) Improvement in traditional areas, and
- iv) The potential for Rice Bran and Oil Palm

I. CURRENT STATUS

The total area under oilseeds cultivation is currently estimated to be about 16 million hectares. The average rate of growth of oilseeds production which was 3.46 per cent during the period from 1952-53 to 1964-65 declined to 1.62 per cent between 1967-68 and 1978-79. One of the main reasons for this decline was the poor increase in the area under oilseeds cultivation during the latter period. This was in sharp contrast to the significant improvement in the productivity of cereal crops during the same period. In fact, except during the First Five Year Plan period, oilseeds production has fallen short of target.

Production data relating to edible oilseeds comprising groundnut, rape/mustard, sesamum, safflower, niger, soyabean and sunflower, highlights large variations from year to year. Groundnut, which constitutes 70 per cent of the oilseeds, has hardly shown any improvement over the last five years. A major reason for this poor performance is unfavourable weather. Another factor is that out of the total area under oilseeds cultivation, less than ten per cent is irrigated.

Given this brief background, the likelihood of any major breakthrough in the foreseeable future would seem to be quite low. If, however, some determined and systematic steps are taken to introduce fairly well accepted corrective measures, improvement is certainly possible. In spite of this, the dependence on imports of edible oils is likely to continue for quite some time. The other point of grave concern is the danger that the already low per capita edible oils and fats consumption is likely to fall further.

II. SOME ECONOMIC & NUTRITIONAL CONSEQUENCES OF OIL SHORTAGES

A. Economic

Next to petroleum, the two major items of import for India are edible oils and fertilisers. The problem, however, is not restricted to edible oils only. The inedible oils used in soap-making and for paints and varnishes also need to be considered to get a complete picture. As per capita income grows, the demand for soaps, whose income elasticity is 1.7, is bound to grow. In a similar manner, with the increase in construction and other development activities, the demand for paints and varnishes is growing as well. The pressure on non-edible oils, however, has been greatly relieved due to the increasing use of non-traditional and minor oils. This has been made possible due to, among others, the pioneering work undertaken at the Hindustan Lever Research Centre on oils such as castor, rice bran, karanja, sal and neem, during the last 20 years.

It is the continuous shortage of edible oils that has contributed to escalating inflation and draining of foreign exchange. An interesting picture emerges if we consider how imported oils are utilised: a major portion of the oil requirement of the vanaspati industry is met through imports. This keeps the pressure off the indigenous edible oils market. The logic of providing the vanaspati industry with oil much below the local market price and maintaining some kind of informal price control on the final product, however, needs to be assessed. Vanaspati is largely consumed by the relatively more affluent and bulk consumers.

(Continued)



Company Meeting: Hindustan Lever Limited

A PERSPECTIVE ON EDIBLE OILS

It would, therefore, be rational to lift the informal price control and charge an economic price for the imported oil. The consequent surpluses generated by the Government through the sale of imported oil to the vanaspati industry can then be used as an additional resource for the development of indigenous oilseed production. Perpetuating the system of keeping the price of edible oils artificially low through imports runs counter to the long-term aim of increasing indigenous production.

In making a plea for several steps that need to be taken in order to reduce the burden of imports, it is useful to examine the supply and demand figures between 1970-71 and 1980-81. From a deficit of six lakh tonnes in 1970-71, we were faced with a deficit of more than a million tonnes in 1980-81. This gap is likely to persist for the next few years; by very conservative estimates, it could rise to two million tonnes by the end of the decade, even at the very low level of per capita consumption.

Suggestions have been made from time to time that a partial cushion against import costs can be provided by not only rationalising the pricing policy of imported oils but also by exporting oilseeds like HPS groundnut and cakes and meals, as well as other agricultural commodities. The cost of imports of edible oils formed about 0.3 per cent of the country's import bill in 1960. This went up to about two per cent in 1970 and is currently between five and six per cent. During the same period the value of agricultural exports has steadily gone up. Though this argument has obvious limitations, a sharper focus on some of the agricultural exports could help enhance foreign exchange earnings. The opportunities to export sugar are uncertain from year to year, but there has been a decline in the value of staple items such as tea and oil cakes. To some extent this has been made up by coffee, tobacco and spices. In other words, a more organised and centralised effort to boost agricultural exports in the country's areas of strength could help reduce the impact of the cost of importing edible oils.

The export of HPS groundnut has been a very productive foreign exchange earner over the years. Before this was canalised, there was a very encouraging and progressively increasing trend. Having reached a peak in 1976-77, it dropped drastically in 1979-80. If we decanalised the export of HPS groundnut, it would be possible to recover lost ground over a period of time and achieve a potential export of two lakh tonnes per annum. While this would mean an outflow of 90,000 tonnes of oil, the net realisation in foreign exchange under currently prevailing prices would be about \$160 million, equivalent to about three lakh tonnes of imported oil.

Another important source for generating foreign exchange is the export of extractions.

Unfortunately, India's policy on this has been inconsistent and the country is looked upon as an unreliable supplier. In the international market there is increasing availability of soyabean meal and soyabean producing countries have undertaken vigorous and aggressive marketing efforts to promote the use of soyabean meal. This, coupled with uncertainties in the availability of extractions from this country, has actually deprived us of a very large share of this profitable market. To build a sizeable and steady market share in competition with soya meal, India will need a long-term strategy. This involves sophisticated marketing in a growing but increasingly competitive world market. It is also essential to have a long-term understanding between exporters, the animal and poultry feed industry and the Government so that a reliable supply for exports can be maintained.

Simultaneously we need to direct efforts to build up value-added exports in certain areas where opportunities exist. Initially these activities will require support to be competitive. Thus castor based derivatives, compound animal feeds, processed sal products, etc. could develop into significant exports. With the progressive establishment of markets for some of these value-added products, the export of raw oils, such as castor and sal, can be tapered off.

There are certain inherent strengths in our agricultural sector which could provide some buffer against foreseeable costs of imports if tackled methodically.

B. Nutrition

The minimum nutritional requirement of fat specified by the Indian Council of Medical Research is about 20 kg per capita per annum. In recent years, however, the per capita availability of oils and vanaspati has been far below this figure — around 5 kg. If the national average is that low, the predicament of the poorer sections of society is bound to be even worse.

Nutritionists have traditionally been focusing greater attention on the need for calories, proteins, carbohydrates, minerals and vitamins in diet than on edible oils and fats. The vital role of oils and fats in human health is too well-documented to be ignored, especially given the very poor consumption levels in this country.

Oilseeds are rich in proteins and fats, and fat is equally important in the diet of weaker sections of the population as its caloric density is more than twice that of proteins or carbohydrates. Essential fatty acids from oils and fats constitute membranes of living cells. They are also used by the body to make prostaglandins, important metabolites involved in regulating the muscles and the brain. Fatty acids also play a role in immunity. Fats convey and metabolise fat-soluble vitamins and play a part in the biosynthesis of several long chain alcohols necessary for transmembrane transport of sugars.

Without adequate fat in the diet, it would be impossible to solve the problems of calorie deficiencies of the vulnerable sections of our population such as infants, children and pregnant mothers. Continuous deprivation of fat leads to inadequate water retention, greater water loss through the skin, scaling of the skin, impaired metabolic efficiency as evidenced by the increase in endogenous oxygen intake and decreased tone of all cell functions and muscles. Since essential fatty acids constitute the major framework of all cells, decreased availability can also lead to impaired growth and diminished mental and physical capacity.

The consequences of low per capita consumption of oil are serious and pose a threat to the health of our nation. Therefore, while tackling the problem of shortage of fats, we need to urgently examine its availability, especially to the vulnerable sections of society through existing or new distribution channels.

III. WHAT CAN BE DONE IN TRADITIONAL AREAS

Over the years productivity has improved in certain traditional oilseeds within the country even though the sum total has been below expectations. It is now necessary to constantly examine ways to increase the spread effect as well as to tap new methods to improve the rate of growth.

Next to foodgrains, oilseeds production, of about 10 million tonnes valued at Rs.2,500 crores, constitutes the main agricultural sector in the country. As stated earlier, the growth rate in oilseeds has declined from 3.46 per cent in the period 1952-65 to 1.6 per cent in the period subsequent to this. In order to achieve the Sixth Five Year Plan target of 13 million tonnes, it would be necessary to grow at over six per cent per annum.

However, even to achieve a modest improvement over the current growth rate of 1.6 per cent it is necessary to step up the outlays on research, development and the extension of oilseeds. In the Sixth Five Year Plan, out of an outlay of Rs.6,000 crores on agriculture, only Rs. 65 crores have been earmarked for oilseeds development. Although it is an improvement over the Rs. 14 crores in the Fifth Plan, the total amount is still quite small. One of the methods of augmenting resources for the development of oilseeds could be the suggestion made earlier of recovering commercial prices from the vanaspati industry. At current prices this could generate upto Rs. 150 crores per annum. Allocating some of these additional funds for Research and Development would certainly help raise the growth rate significantly.

Further, increasing the area under irrigation for growing oil crops is the single most effective measure that can be adopted in a rapid and sustained manner. This will reduce the dependence on weather. Varietal and seed multiplication management, which has been successfully done in the case of cereals, will greatly help in restoring, if not improving the very poor rate of productivity. Finally, it is imperative that a consistent price support policy is evolved to persuade the farmer to sustain his activity.

(Continued)



Company Meeting: Hindustan Lever Limited

A PERSPECTIVE ON EDIBLE OILS

At this point, let us briefly review the status of traditional oilseeds where marginal improvements have been made in certain areas

Of the total groundnut production in the country, about 16 per cent is the summer crop, which is cultivated in irrigated areas — the rest, 84 per cent, is the kharif crop and is primarily dependent on the monsoon. The competing crops are jowar, bajra, maize, and to a lesser extent, cotton. Currently, in terms of return per hectare, the net return on groundnut is highest in these regions, but with the introduction of hybrid bajra, the situation may change. Ideally, therefore, it is necessary to improve the kharif productivity and increase the area under rabi groundnut.

There is need for breeding new high yielding, short duration varieties of this crop. Large genetic stocks of improved varieties are now being maintained in groundnut breeding centres in India, some for selection work and to a limited extent for planned hybridisation and mutation breeding programmes. Although coverage under improved varieties is being extended in large areas in Andhra Pradesh, Tamil Nadu, Karnataka, Gujarat, Maharashtra and other states, this has not yet produced the expected impact on groundnut production in the country. With our present knowledge and experience, and with the use of improved seeds, the application of fertilisers and trace nutrients, proper plant protection measures along with attention to the timing of sowing, optimum seed rate and adequate weed control, there is scope to increase the level of production by at least 50 per cent.

Rape/mustard is one of those crops for which both area under cultivation and production and yield show large fluctuations from year to year. One of the major problems is the non-availability of suitable seeds. Furthermore, various schemes have been adopted for foliar application of fertilisers and mass plant protection against Aphids, but the productivity gains have not been encouraging. In Uttar Pradesh, as well as in Madhya Pradesh, Punjab, Haryana, Rajasthan and Assam, major gains are possible through uniform seed multiplication programmes and sustained extension work among farmers.

Though it is a traditional oilseed, **sesamum** has not received any sustained attention. The average yield of sesamum is gradually decreasing from year to year, partly due to the prevalence of serious diseases like stem and root rot and wilt, and partly due to mycoplasmal infections such as phyllody. Fungal and vector control is particularly important for this crop

In the case of **sunflower** large-scale cultivation in our country started in the early seventies with the introduction of varieties from the USSR and Canada. However, even after ten years, progress of the sunflower development

scheme has not been very encouraging. The main problems are heterogeneity in varieties, susceptibility to diseases like rust, alternaria, leaf spot and various root and stem rots, bird damage, poor seed set and genetic deterioration of varieties.

In the Sixth Five Year Plan, it is intended to increase the total acreage under sunflower to 7.5 lakh hectares by 1984-85 from its present level of slightly over two lakh hectares. The potential oil output from such activity would be large enough for this scheme to be pursued with a great deal of vigour.

The potential oil output from **cottonseed** is of the order of four lakh tonnes. However, only 1.5-2.0 lakh tonnes of oil is normally recovered. In order to improve oil recovery, as has been recommended for several years, it is essential to discourage the use of cottonseed directly in animal feeds and divert it from the ginning mills straight to crushing plants. It is also possible to improve the yield and the quality of the oil by using the decorticated cottonseed extraction process. In addition to its increasing use by the vanaspati industry, it has been gaining acceptance as an edible oil in recent years.

During the last three years, **soyabean** cultivation has made rapid progress. According to current estimates, the area under this crop has gone up from three lakh hectares in 1978-79 to 4.3 lakh hectares in 1979-80. It is estimated that this area can be raised to 10.5 lakh hectares by 1984-85, which could yield about two lakh tonnes of oil, and about four lakh tonnes of high quality protein. Even though the target appears ambitious, the experience of countries like Brazil, Argentina, Paraguay, Mexico and Thailand shows that in the initial years (1964-72), an almost 200 per cent increase in area took place. Soyabeans produce two to four times as much protein per unit area as pulses and grains and thus offer promise as the cheapest available source of high-quality protein.

The production of **coconut** is estimated at around 6000 million nuts. However, there has been a declining trend in productivity as a result of the failure to replant superior seedlings, over aged plantations, the menace of coconut 'root wilt' disease, sparse use of fertilisers and also, perhaps, indifferent agricultural practices. If planned targets with respect to coconut have to be met, then a part of this crop will have to be grown on a commercial plantation basis. Such an endeavour will require resources which are beyond small homestead gardens.

IV. POTENTIAL FOR RICE BRAN AND OIL PALM

I have selected Rice Bran and Oil Palm for a more detailed examination compared to the oilseeds discussed above in view of their very large potential. With the increase in rice production, oil from bran for both edible as well as

non-edible purposes would increase significantly. And there is sufficient evidence from several countries to suggest that palm oil has high long-term potential for increasing the availability of edible oils substantially.

1. Rice Bran

In 1980-81, the country produced about 150,000 tonnes of rice bran oil, most of it of technical non-edible grade. Starting with about 500 tonnes in 1960, this represents impressive growth even though it is a fraction of the potential availability in the country. Nevertheless, as a result of the pioneering development of sophisticated indigenous technology at the Hindustan Lever Research Centre, it is today a major raw material in soap manufacturing. This in turn has eliminated the dependence on imported tallow by large units and at the same time has helped conserve edible oils which otherwise would have been diverted to soap-making.

The main reasons why rice bran oil (RBO) has not grown to its true potential are (a) the method of de-husking the paddy, and (b) the presence of the enzyme lipase which increases the free fatty acid content of the bran and renders the resultant oil unsuitable for edible purposes.

It is therefore of interest to examine ways of enhancing the availability of extractable bran and at the same time to review the status of edible RBO. Rice bran is obtained by de-husking paddy and polishing the resultant brown rice. The average quantity of bran removed during polishing is five per cent of the weight of paddy. Under the Rice Milling Industry (Regulation) Act, the Government has fixed the degree of polish. The percentage of bran that may be removed should not be more than five per cent or less than three per cent. The logic for this is that excessive removal of bran beyond five per cent divests the rice of its nutritive value. It is therefore appropriate to use a figure of five per cent of the paddy tonnage as the theoretical bran availability. This is equivalent to seven to 7.5 per cent on the weight of rice.

In order to obtain bran of extractable quality it is necessary to de-husk paddy first, separate the brown rice and then polish it. The two principal means of milling paddy are through the "huller" and "sheller" (including modern rice mills). In a "huller", de-husking and polishing are done simultaneously. Hence, bran produced is a mixture of husk (23 per cent) and bran (four to eight per cent). In a "sheller", the de-husking and polishing are done separately and it is only these mills that give a quality of bran suitable for oil extraction.

On the basis of 55 million tonnes of rice production and at 7.5 per cent polish, the theoretical availability of bran is approximately 40 lakh tonnes.

The estimated quantity processed, however, is only nine lakh tonnes. This is due to the fact that about 30 per cent of paddy is hand-pounded and 35 per cent is milled by "hullers".

(Continued)



Company Meeting: Hindustan Lever Limited

A PERSPECTIVE ON EDIBLE OILS

Of the 14 lakh tonnes produced by "shellers", if only nine lakh tonnes have been processed, the rest has obviously gone into feeding poultry and cattle. If all the "sheller" bran was processed during 1980-81, instead of producing 130,000 tonnes of RBO, the country could have produced 200,000 tonnes of oil.

The potential of RBO for the year 1984-85 has been estimated in the Sixth Five Year Plan at 440,000 tonnes. Based on current experience, this figure appears to be on the high side. However, if by 1985 the percentage of paddy milled in "shellers" can be raised to 65 per cent and all the available bran can be extracted, the oil production can rise to 285,000 tonnes.

Some of the obvious steps which need to be taken urgently are:

- Hasten the modernisation of the rice mills through existing schemes and increase the pace of replacement of "hullers" by "shellers".
- Re-examine procurement/levy policies in order to remove the competitive disadvantage and increase the availability of extractable quality bran ex "sheller" units.
- Improve the effectiveness of the Food Corporation of India and the co-operative sector for marketing the bran to solvent extraction plants.

The problem of increasing the proportion of edible grade RBO of the total oil extracted needs to be tackled urgently. In 1980-81, of the 130,000 tonnes of RBO produced, only about 5000 tonnes was of the edible variety. No method has been found upto now other than heat deactivation of lipase to stabilise the bran ex-milling. Parboiled paddy gives a higher yield of rice as compared to raw paddy, better quality in terms of oil content (22 per cent against 16 per cent in raw bran), and because of the stabilising effect of parboiling, more stable extracted oil. Of the total rice produced in the country, more than 50 per cent is parboiled. Unfortunately, very little parboiled bran is available for oil extraction because of the structure of the rice milling industry, and parboiling cannot become universal practice because it influences the taste of the rice.

Though a lot of work has been done in the country to develop a suitable and economical stabiliser, we are yet to develop designs which could be widely used in the rice mills. Recently, USDA reported a promising new method of deactivating lipase and stabilising rice bran using a simple, low-cost, extrusion cooker. However, this new technology needs to be tested under field conditions.

A heat-deactivation method for bran by, say, the use of agricultural waste, can be developed as a simple, low-cost unit process for use in the rural rice-growing areas. Although this may be a practical short term solution, preliminary chemical research indicates that eventually a

simpler and more elegant chemical deactivation of lipase may be possible for widespread use. If we were to aim for a production of a modest 100,000 tonnes of edible rice bran oil by 1984-85, we could save Rs. 70 crores worth of foreign exchange per annum.

There is also need for a clear long-term policy on the export of de-oiled rice meal, crucial for the solvent-extraction economy. There is a limit to which the domestic market can absorb the extracted meal. Time and again it has been observed that once the local market needs have been met, the extraction stops since there is no ready outlet for additional meal. It is therefore necessary to encourage unrestricted exports in order to maximise oil recovery from rice bran since the economics of rice bran extraction are largely dependent upon realisation from de-oiled meal.

Encouraging exports of rice bran extractions has paid rich dividends in the past. Earnings from exports have gone up from Rs. 3.4 crores in 1974-75 to Rs. 32 crores in 1981-82. This could have gone up even further but for the ceiling on exports and the withdrawal of cash assistance. Moreover, capacity utilisation has gone down drastically. It is estimated that if restrictions on the exports of extraction are lifted, the country can save Rs. 100 crores by producing oil and earn a significant amount through the export of de-oiled rice bran.

The impression that the local poultry industry would be deprived of a valuable raw material has not been borne out by the recent experience of Andhra Pradesh, which is a leading state in poultry farming.

2. Oil Palm

Malaysia and palm oil have virtually become synonymous in the international oil trade. No discussion on edible oils can be complete without a description of what can only be termed as a stupendous achievement by this neighbouring country. As subsequent discussions will reveal, palm oil could make a major long-term contribution in bridging the gap between edible oils supply and demand.

a) Palm Oil & Malaysian Economy

Malaysia has been described as one of the miracle economies of South East Asia, with a growth rate of six per cent per annum in the 1960s, seven per cent in the first half of the 1970s and between 11 to 13 per cent from 1976 onwards. It has managed to keep inflation under five per cent with the agricultural sector providing the major springboard for its overall growth and with the emphasis given to palm. Malaysia, in the space of ten years, has become one of the three most important countries in the export of edible oils. This success is remarkable and impressive, not only in terms of palm oil production, but also the development of the whole sector. Malaysia has now established its own industrial structure in this sector to produce and market processed oil, a considerably

more complex undertaking requiring not only production skills but also skill in marketing the more sophisticated products of the right quality.

The palm crop, which was first introduced to reduce the economic dependence on rubber had a planted area of 130,000 acres in 1960. It now covers an area roughly spanning two million acres. It is the third largest planted crop after rubber and rice. Malaysian palm oil production increased from 1.6 million tonnes in 1977 to 2.5 million tonnes in 1980 and is expected to reach four million tonnes by 1985. Today, it accounts for 63 per cent of world palm oil production.

Yields per acre have also been increased by carefully selecting strains which give high yields of oil and planting the trees in commercial plantations. As the growth of acreage is likely to slow down in future years, the emphasis is to maximise yields from the existing lands. Research is concentrating on optimising fertiliser usage, pollination, field planting densities, and control of diseases, weeds and pests. Propagation by tissue culture, which could increase yields by 30 per cent is also progressing, and field trials with plants from tissues have reached fruit-bearing stage. Commercial planting is expected to commence in 1985.

Palm oil accounts for between nine and 12 per cent of Malaysia's export earnings. It exports close to 95 per cent of the palm oil it produces in various forms. This significant achievement has been possible largely as a result of the Malaysian Government's agricultural investment policies. While the private sector continues to play a vital role and accounts for a considerable share of the growth of the industry, a major force continues to be the Government. Malaysians who are landless or operate uneconomic farm units, are resettled as small holders by the Federal Land Development Authority. This was created in 1956 by the Government and has been funded by financial institutions and the World Bank. The policy, which has led to the development of a successful oil palm cultivation and processing industry, is giving employment and income to no less than one million people. It is a classic example of an agricultural activity thriving under proper organisation and planning. The Malaysian experience has relevance to the subject under discussion and its application to our country.

b) Planning for Palm Oil in India

Oil palm needs red loam soil and does not flourish in the sandy areas of the coastal zones. It grows well, climatically, in areas 10° North and South of the equator — with good humidity, mean annual temperature over 25°C and average minimum temperature not less than 18°C. It needs plenty of sunshine, and evenly distributed rainfall of 2000 mm — a drought lasting over a month has a limiting effect on yields.

Kerala considered medium-sized plantations in 1965, but due to pressure on land and other factors, the efforts did not yield the expected results. However, other areas which can be

(Continued)



Company Meeting: Hindustan Lever Limited

A PERSPECTIVE ON EDIBLE OILS

considered are the west coast of Karnataka, North and South Kanara Districts, and certain areas bordering Karnataka, Kerala and Tamil Nadu. The Andaman & Nicobar Islands offer excellent and practically unlimited possibilities. Two pilot projects of small acreage in Kerala and in the Andaman & Nicobar Islands have been taken up by the Government, but their impact, even as demonstration units, has not received enough publicity.

To begin with, for a pilot project to have any discernible impact, it should cover at least between 20,000 and 30,000 acres. Though by itself this will not make a dent on the oil shortage situation, it will set the pace and provide the impetus for greater development. For larger acreage, it is suggested that the Government consider a joint venture with the private sector which has the requisite expertise and can provide management skills. The necessary finance can be obtained from local and international financial institutions.

In 1965, oil palm estate development cost per acre upto maturity (five years) was estimated at Rs. 3800 in Kerala and Rs. 5600 in the Andamans. Today it would be fair to estimate the cost for the Andamans at Rs. 12,000 per acre spread over a five year period. While it is true that oil palm is a highly capital-intensive crop with a relatively longer gestation period, this by itself should not deter the country from promoting a plantation industry. The major advantages of palm plantations are:

- i) It is not a seasonal crop but is produced regularly all the year round
- ii) Oil palm is singularly free from pests and disease
- iii) Climatic conditions in certain parts of this country are similar to Malaysia and similar crop performance and productivity can be expected
- iv) Oil palm produces fruit regularly from five years to 30 years of age and continuity of supply is therefore reasonably ensured
- v) Because of modern growing and milling techniques, the quality of oil produced is uniform throughout

Considering that an investment of Rs. 100 crores spread over a five-year period would start yielding annually oil valued at Rs. 80 crores and save foreign exchange, the case for pursuing this seriously cannot be overemphasised. If Malaysia has achieved the highest efficiency in output, cost and high yields, it is entirely due to scientific and research-oriented management of plantations by a very enterprising private sector with Government support.

CONCLUSIONS

In reviewing the problem of availability of edible oils and fats in the country, I have briefly surveyed some economic and nutritional aspects. The data on oilseeds production and the experience of the last few years indicate that while we should continue our efforts to achieve self-sufficiency, we should also consider the need for imports and what it will cost the country. Since the import of edible oils appears to be unavoidable in the foreseeable future, ways of reducing its impact on the economy as well as on the long-term effort within the country should be considered with due care.

During the last ten years imports of edible oils have grown steadily. In financial terms it is currently equivalent to about ten per cent of the import bill for petroleum products. While exploration, conservation and substitution generate an air of hope and optimism on the mineral oil front, the same cannot be said for vegetable oils.

Apart from the adverse economic impact of edible oil shortages, the not-so-apparent nutritional consequences of poor consumption levels have much deeper and long-term consequences.

I believe that in the short-term some improvement in availability can and must come from frequently recommended practices such as better seeds, more extensive irrigation, and fuller utilisation of the increasing quantities of rice bran. Further, evolving a price support policy as well as one on the utilisation of imported edible oils which is in consonance with the strategy on pricing, would act as an incentive to sustain and improve indigenous production.

Oilseed production is now a national priority. Hence it is reasonable to expect that the plans to increase indigenous edible oil availability will receive the much needed encouragement. Even with moderate success in increasing the output of groundnut, sunflower, soyabean and cottonseed oil, alongwith some improvement in the availability of edible grade rice bran oil, imports can be reduced by 30 to 40 per cent by 1984-85 at the current levels of consumption. In addition, if the recommendations made for export of HPS groundnuts and extractions find acceptance, this can meet the cost of the remaining imports, substantially if not fully, by the end of the Sixth Five Year Plan.

For a longer-term strategy some other factors need to be considered. The goal of self-sufficiency in edible oils needs to be viewed along with the larger national issue of optimising productivity in agricultural land use. In addition, there is the fact that foreign exchange earnings from the export of certain agricultural commodities have been showing encouraging growth, the methods of increasing these further as a possible source for financing edible oil imports, need to be examined. The role of an organised palm oil industry has also to be taken into account as part of such a strategy.

Finally, I believe that there is a need for a coordinating body to oversee the policies on agricultural exports and oil imports, in the national interest and keeping aside sectoral pressures. An apex body constituted by the Government as a single point recommendatory unit, along with the active participation of the agricultural interests and the trade could perform this function. If the short-term as well as the long-term strategy is clearly defined and made the responsibility of such a body, we are likely to bring forth the quality of effort, imagination and achievement which have been missing from the edible oil strategy of the country.

(NOTE: This does not purport to be a report of the proceedings of the Annual General Meeting. Anyone wishing to have a copy of this speech in booklet form, including charts, may please write to: Communications Department, Hindustan Lever Ltd., P.O. Box 409, Bombay 400 001.)

Ours is a Magnificent Land-2

*I was born unwelcome
into an overcrowded land
But I have shared my
home with the exiled.*



*I exist in a village
imprisoned by my fields.*

*But in quest of my spices
man discovered a globe.*

*I adorn my emaciation
with the tatters of penury*

*But I have gifted the world
the luxury of fine muslin.*

*My cookfires I light
with the dung of cattle.*

*But I have taught man the
abstraction of algebra.*

*I grew up untutored,
unmusic'd and unsung.*

*But my syncopated sitar
has driven nations to frenzy.*

*I am surrounded by children
with malnourished minds.*

*But I have given man
his first philosophy.*

*I craft shoes that shod
three whole continents.*

*But I have just begun
to stand on my own bare feet.*

*I am named by many names
in a babel of tongues.*

*But I have adopted a name
by strangers given: India*

*I am sad.
But I am glad.
I am*

*Ours is a magnificent land.
We must build a
magnificent future. Think Ahead.*

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CORPORATE SECTOR

In the market

Malayalam Plantations (India)

Malayalam Plantations (India) Ltd, Regd. Office: 45/481, Bristow Road, Millington Island, Cochin 682003) proposes to dilute its foreign equity shareholding from the present 74 per cent to 10 per cent. Accordingly, Malayalam Plantations (Holdings) Ltd, UK, proposes to offer 10.20 lakh equity shares of Rs 10 each in the Indian company to the Indian public at Rs 14 per share. The subscription will open on July 12, 1982 and close on July 22, 1982 or earlier but not before July 14, 1982.

According to Mr P. J. Weavers, chairman, the company's share is presently quoted at Rs 24 on the Bombay stock exchange and the new shareholders will be eligible for full dividend that may be declared for the year ended March 1982. The company has a total number of 26 tea and rubber estates in South India. In spite of a crisis in tea markets all over the world, according to Mr Weavers, the company has been able to show good profit and maintain dividend at 20 per cent since its incorporation.

Other developments

Hindustan Lever: Improved performance

Hindustan Lever Ltd which maintained the equity dividend at 25 per cent during 1981 showed improved performance in the first five months of 1982 over that in the corresponding period of 1981. Stating this at the annual general meeting of the company the chairman, Dr A. S. Ganguly, however, cautioned that there were early signs of recession and economic progress would depend upon good monsoon and credit policy of the Government, both of which were uncertain.

As for the new projects, the chairman informed the shareholders that the extension of synthetic detergent plant at Jammu had been completed and site work commenced on the new fine chemical manufacturing unit in Jammu. Besides, the company had applied for setting up

facilities for the production of a plant growth nutrient unit in Jammu involving a capital outlay of Rs two crores. Moreover, the company was also going ahead with its three new projects: (i) the Rs 16-crore di-ammonium phosphate (DAP) fertiliser plant in Haldia, (ii) the Rs 14-crore 100 per cent export oriented soaps and personal products unit in Kandla Free Trade Zone and (iii) the Rs 3-crore plant for the manufacture of detergents in Chindwara, Madhya Pradesh.

Reliance Textile: Bright future ahead

At the annual general meeting of the Reliance Textile Industries Ltd held at Bombay on June 15, Mr Dhirubhai H Ambani, chairman and managing director, struck a note of optimism about the company's overall performance for the current year. In the first five months of 1982 (January to May) it has been quite impressive with sales totalling Rs 150 crores (Rs 115 crores during the corresponding period in 1980), a growth of 30 per cent. According to Mr Ambani, the company's turnover and gross profits for 1982 are expected to increase by about 40 to 50 per cent. Turnover for 1981 at Rs 305 crores showed a rise of about 45 per cent and gross profit at Rs 30.67 crores spurred by 70 per cent. As per the present guidelines, the company cannot issue bonus shares before 1983.

The company's Rs 80-crore polyester filament yarn (PFY) project presently under implementation at Patalganga, Maharashtra, is scheduled to commence production in August 1982. Apart from this, the company has taken up for implementation two crash programmes envisaging a total outlay of Rs 74 crores. The programmes cover the modernisation of the textile mills at Sidhpur and the installation of additional balancing equipment at the company's textile units at Ahmedabad. Mr Ambani expected the company to emerge soon not only as the biggest producer of PFY in the country, but also as the biggest processor of the widest range of yarns of some thirty different varieties and more than 100 different colour shades. The company has submitted an application for the expansion of its PFY capacity to 25,000 tonnes per annum. Further, the company has also applied for taking up the manufacture of 1.50 lakh tonnes of PTA, a

major raw material for the polyester industry.

Polyolefins Industries suffers setback

The working of Polyolefins Industries Ltd during the first five months (January-May) of the current year has suffered a setback owing to constraints like power interruptions and irregular availability of the required basic raw material, ethylene, from the only source NOCIL. The three units of the company could, therefore, operate for only 80 days during this period. This was disclosed by Mr Arvind Mafatlal, the chairman of the company, while addressing its annual general meeting held in Bombay.

The turnover for the first five months of 1982 has remained more or less the same as that of the corresponding period of last year. Production of polyethylene has totalled 10,000 tonnes against 15,000 tonnes while that of pipes has aggregated 840 tonnes against 305 tonnes.

As regards expansion and diversification, the company's applications for regularisation of its capacity to manufacture 50,000 tonnes per annum of HDPE based on the maximum utilisation of available plant and machinery is still under consideration of the Government of India. The company's application for the manufacture of 4,000 tonnes per annum of reinforced polypropylene, an engineering plastics, is being processed by the Government. Besides, the company has a proposal to set up a new project for the manufacture of silicon, for which a new company is likely to be floated.

Mr Mafatlal hoped to maintain the 1981 performance and to declare a dividend of 16 per cent for the current year ending December 1982 on the enhanced capital resulting from the proposed 1:3 bonus issue.

Forthcoming company meetings

JULY 3 TO JULY 9

Swan Mills Limited, Rama Watumull Hall, K C College Bldg., Churchgate, Bombay-400 020. (July 9, 3.30 p.m.)



STRAW PRODUCTS LTD.

CHAIRMAN'S STATEMENT

At the Annual General Meeting held on 24th June, 1982.

Ladies & Gentlemen,

I have great pleasure in welcoming you to the 43rd Annual General Meeting of your Company. In the year 1981, the Company's sales and other income reached Rs. 60.56 crores—an increase of 22.2% over the previous year. In the last two years, sales have registered an increase of 54%. Gross profit before depreciation at Rs. 7.44 crores, was however only marginally higher over the previous year due to pressure on profitability on account of rise in prices of inputs, highly competitive marketing conditions and larger movement of raw materials and finished goods by road at a considerably higher cost because of inadequacy of railway wagons. Further, frequent interruptions in power supply resulting in loss of production, higher wastage and damage to plant and machinery, have been a regular feature during the last year. The Company's performance during the year can be considered satisfactory, keeping in view the above factors beyond the control of the Management.

The Directors have been pleased to recommend a dividend of 20% on equity shares, for your approval.

PAPER & BOARD

It is a matter of gratification that despite various odds, the Company's production of Paper and Board during the year was higher at 61,547 tonnes. Installed capacity for paper was increased by 5,000 tonnes per annum at JK Paper Mills last year. At the Board Mills, Straw Board capacity has been expanded from 6,000 tonnes per annum to 7,350 tonnes per annum and that of MG Industrial Packaging and Base Paper from 5,500 tonnes to 7,600 tonnes per annum. Now the total installed capacity of your Company stands at 64,650 tonnes of paper and board. The Company holds industrial licence for further expanding its capacity by 10,000 tonnes, out of which 2,000 tonnes is expected to be completed during the current year.

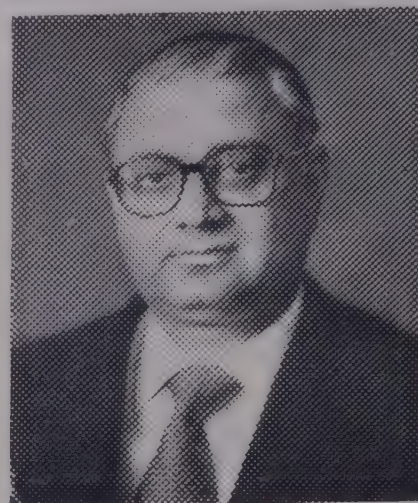
The paper industry is, at present, experiencing demand constraint which has been accentuated by high imports and credit curbs, particularly on trade. Now, since paper is available in plenty, price and distribution control on paper has become redundant and should be removed at the earliest. The Government's insistence on paper industry to continue to manufacture and supply 30% of its production as White Printing Paper at price far below the cost of production, is unjustified and is resulting in impairing economic viability of the industry. In fact, the thesis of asking any industry to part with any part of its production below cost, is not only inequitable, but does grave harm to the growth of the industry.

Further, now that the country is in a position to spare paper for exports, the ban on exports should be removed and export of paper should be freely allowed.

Modernisation and rehabilitation is urgently needed in paper industry in India. The normal provisions for depreciation do not provide adequate funds for undertaking such modernisation and rehabilitation in view of the fact that the replacement costs have steeply risen in the recent years. It is, therefore, necessary that much higher accelerated depreciation than available, is allowed and that adequate funds are made available to the industry, on soft terms, for undertaking such schemes.

BATTERIES DIVISION

The installed capacity of the Dry Cell Industry increased to 1,324 million in 1981 from 1,264 million in the preceding year. But due to recession in demand, production declined to 976.5 million in 1981 from 991.35 million in 1980. You will be pleased to note that in spite of general recession in the industry, the production of dry cells of the Company increased by 37% to 72.49 million cells in 1981 from 53.03 million cells in 1980 and the exports increased



SHRI HARI SHANKAR SINGHANIA

HIGHLIGHTS

- **TURNOVER INCREASED TO RS. 60.56 CRORES FROM RS. 49.56 CRORES—A 22% RISE.**
- **GROSS PROFIT RS. 7.44 CRORES. RECOMMENDED DIVIDEND 20%.**
- **CEMENT PLANT TO GO ON STREAM BY THIRD QUARTER 1982—AHEAD OF SCHEDULE.**
- **NO JUSTIFICATION FOR PRODUCTION AND DISTRIBUTION CONTROL ON PAPER.**
- **NO INDUSTRY SHOULD BE COMPELLED TO SELL ITS PRODUCT BELOW THE COST.**
- **BAN ON PAPER EXPORT SHOULD BE REMOVED.**
- **CREDIT CURBS IMPOSED ON PRODUCTIVE SECTORS NEED LIBERALISATION TO OPTIMISE CAPACITY UTILISATION AND AVOID FALL IN DEMAND. ADVERSE EFFECT ON THE ECONOMY OF RECESSION IS AS BAD AS THAT OF INFLATION.**
- **AVAILABILITY OF COAL, POWER AND RAILWAY WAGONS TRAILING BEHIND DEMAND. POWER CUTS BETWEEN 20 TO 100 PER CENT IN ALMOST ALL THE STATES. IMMEDIATE REMEDIAL MEASURES URGED.**
- **IN THE YEAR OF PRODUCTIVITY MAN-DAYS LOST HIGHER THAN PREVIOUS YEAR. INCREASED MILITANCY IN TRADE UNION MOVEMENT AND GROWING APATHY TOWARDS PRODUCTION A MATTER OF CONCERN.**

to 21.84 million cells in 1981 from 13.20 million cells in 1980. The Company has been able to secure a repeat export order of 25 million cells for 1982 which shows the confidence of the importers in the quality of our product. The Company is proud to receive the Best

Exporters Shield for Consumer Durables from Engineering Export Promotion Council of the Eastern Region, for excellent export performance.

With increased production in consumer industries, domestic demand of dry cells should rise in future and exports should also expand. However, the market will remain highly competitive. Your Company is alive to the situation and continually endeavouring to improve efficiency and cut down cost of production. Implementation of the letter of intent to further increase the capacity by 60 million cells per annum is also being pursued so that the Company is able to maintain its market share.

CEMENT PROJECT

As I reported last year, the Company is establishing a cement plant with a capacity of 500,000 tonnes of cement per annum at Basantgarh, Dist. Sirohi—a backward area in the state of Rajasthan. You will be pleased to note that the plant is expected to go in production in the third quarter of the current year, ahead of schedule. In order that the plant may not face power shortage which is very acute in Rajasthan, arrangements have been made to immediately import diesel generating sets with a total capacity of 7MW, which will meet 50% of the power requirement.

Recently, the Government has announced a scheme of partial decontrol of cement price and distribution with upward revision in the price of levy cement. This is a step in the right direction. However, complete withdrawal of subsidy on power and transport of coal by road, particularly for the plants situated in states like Rajasthan which are facing power cuts upto 100 per cent for long durations and who have to get coal transported by road over long distances, will adversely affect cement units, in such areas, especially the new ones. I would strongly urge the Government to reconsider this matter.

DEBENTURE ISSUE

During 1981, the Company issued 2,00,000 (12%) secured Debentures of Rs. 500 each for the total value of Rs. 10 crores with option to receive 25 equity shares of Rs.10 each at a premium of Rs.10 per share. The issue of Debentures offered to the public by prospectus was over-subscribed by more than 25 times. May I thank the investing public for reposing such a confidence in the Company.

ECONOMIC OUTLOOK

The economy has performed well in the last two years and promises to do well in the current year as well. On the agricultural front, there has been a near record harvest. Output of foodgrains, cotton and sugarcane has touched or surpassed the previous peak levels. Consequently, there has been marked improvement in the availability of wage goods and this has contributed to price stability.

The environment is now quite propitious for sustained growth which had eluded us in the past. Greater pragmatism is evident in recent policy pronouncements. The relaxation in the industrial licensing policy, liberalisation of imports of raw materials, capital equipment and technology, decontrol of steel and the partial decontrol of cement are indeed good portents. The step up in crude oil production from 10.51 million tonnes in 1980-81 to 16.2 million tonnes last year and the projected output of 21 million tonnes in the current year is another healthy development.

The capital market was buoyant throughout the year. The total capital raised by private corporate sector exceeded Rs. 500 crores—over five times the average raised annually during the last decade. Convertible bonds and debentures floated by companies with a fine track record, were particularly favoured by the public. The conti-

nance of the same will depend on the corporate results in the current year and the monsoons. However, capital investment bonds recently announced by the Government will severely compete with corporate securities in view of the very attractive tax incentives attached to them.

The economy is still beset with several problems. The most critical one is the inadequacy of infrastructure. After recording some improvement last year, there are signs that the availability of coal, power and railway wagons is trailing behind demand. Electric power generation in particular has been increasingly falling short, resulting in power cuts, ranging anywhere between 20% to 100%, in almost all the States of India. This has caused a traumatic situation for industrial managements. At a time when resources are so scarce and there are stringent curbs on credit, industrial units are compelled to incur substantial capital expenditure, for setting up diesel captive generating capacity. Apart from tying up resources which could be profitably deployed in more-productive activities, industry has to incur substantially higher cost, two to three times the tariff for public supply, for this essential input.

Severe credit curbs have been imposed on productive sectors. Admittedly, some degree of monetary restraint was necessary to keep inflationary pressures under check. However, the screw has been tightened to the extent that there is an almost total stoppage of additional credit to even vital sectors where production has increased significantly in the last year. This has resulted in visible slackening in the offtake of items such as tractors, commercial vehicles and other consumer durables though there is no perceptible fall in demand. Even the electricity boards have not been able to pay for their requirements. Thus, companies have been greatly strapped for liquidity, resulting in reduction in output and slackening of effort to optimise capacity utilisation in the very year which is designated the year of productivity. I do trust that remedial measures will be taken urgently to alleviate the situation.

The wholesale price index has been remarkably stable in the last few months. The index as on end April 1982, was at the same level as a year ago, largely due to fall in the prices of pulses, cotton, oilseeds and sugar. However, in my view, what is needed is sustained and increased supply of wage goods and essential industrial products, in order to contain inflationary pressures. At the same time we have to remember that the adverse effect on economy of recession is as bad as that of inflation. Now since we have been able to contain the inflation, we have to be extremely cautious to ensure that the recession does not set in.

It is a matter of great concern that in this year of productivity, the man-days lost so far are much higher than the previous year. What is most disturbing is the increased militancy in trade union movement and growing apathy towards production. It is to be recognised by trade union leaders that unless production increases, there could be no creation of wealth for distribution amongst the various claimants. The labour laws need to be not only strengthened but more strictly implemented to penalise such irresponsible acts, harming national interests.

Before I conclude, I would like to express my appreciation to all the workers, staff and officers of the Company for their hard and dedicated work.

(NOTE: This does not purport to be a record of the proceedings of the Annual General Meeting.)



Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rupees in Lakhs)

Name of Company	Baroda Rayon Corporation		Bharat Commerce and Industries		Chemicals and Fibres of India		National Rayon Corporation		Reliance Textile Industries	
Industry group	Silk and Synthetic		Silk and Synthetics		Silk and Synthetics		Silk and Synthetics		Silk and Synthetics	
Item	Year ended December		Year ended December		Year ended September		Year ended December		Year ended December	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Liabilities (at the end of the year)										
1. Net worth (i+ii)	2,276.8	2,971.9	1,000.0	1,067.8	1,578.7	1,580.4	2,355.2	2,641.1	3,179.2	5,709.9
(i) Paid-up capital (a+b)	929.3	989.2	275.0	275.0	748.4	748.4	770.7	770.0	1,236.2	1,697.4
(a) Equity	759.6	759.6	250.0	250.0	748.4	748.4	596.5	596.6	1,206.2	1,667.4
(b) Preference	169.7	229.6	25.0	25.0	—	—	174.2	174.2	30.0	30.0
(ii) Reserves	1,347.5	1,982.7	725.0	792.8	830.3	832.0	1,584.5	1,870.3	1,943.0	4,012.5
2. Borrowings (i+ii)	1,980.3	2,126.9	965.4	1,106.3	892.2	635.8	1,034.1	1,344.7	9,252.7	16,541.6
(i) Long-term	1,007.4	1,032.1	198.1	264.7	—	75.0	563.6	549.1	3,105.5	4,889.4
(ii) Short-term	972.9	1,094.8	767.3	841.6	892.2	560.8	470.5	795.6	6,147.2	11,652.2
3. Non-current liabilities and provisions	—	—	—	17.0	—	—	98.6	111.4	16.5	85.5
4. Current liabilities and provisions	543.2	706.1	960.9	893.6	568.9	554.9	1,271.6	1,488.7	2,731.0	3,865.9
Assets (at the end of the year)										
5. Gross fixed assets	4,626.2	5,430.1	1,870.4	2,104.2	2,116.4	2,203.6	4,767.0	5,601.0	7,370.6	13,219.9
6. Less depreciation	1,853.6	2,185.4	958.1	1,042.2	1,123.6	1,244.5	3,078.5	3,411.0	1,701.6	2,790.1
7. Net fixed assets (5-6)	2,772.6	3,244.7	912.3	1,062.0	992.8	959.1	1,688.5	2,190.0	5,669.0	10,429.8
8. Current assets (i+ii+iii)	2,020.8	2,554.5	1,997.4	2,006.1	2,044.5	1,809.5	3,060.9	3,385.8	9,384.1	15,646.8
(i) Inventories	1,202.4	1,697.3	1,365.0	1,535.5	831.9	377.2	1,819.9	1,997.9	4,504.0	8,279.3
(ii) Receivable and loans and advances	704.1	767.4	515.1	390.5	1,171.5	1,352.7	1,095.3	1,155.1	4,636.9	7,057.9
(iii) Others	114.3	89.8	117.3	80.1	41.1	79.6	145.7	232.8	243.2	309.6
9. Other assets	6.9	5.7	16.6	16.6	2.5	2.5	10.1	10.1	126.3	126.3
Total: Liabilities (1 to 4) or Net assets (7 to 9)	4,800.3	5,804.9	2,926.3	3,084.7	3,039.8	2,771.1	4,759.5	5,585.9	15,179.4	26,202.9
Value of production and other income										
10. Sales/income net of excise duty, discounts and selling commission	3,188.1	4,949.7	6,271.5	6,677.4	2,195.0	3,293.6	7,692.8	8,376.9	20,313.6	29,390.6
11. Increase in stock of finished goods and work in progress	105.2	94.1	-62.5	-48.1	256.2	-442.9	-6.7	23.0	98.6	2,213.9
12. Value of production (10+11)	3,293.3	5,043.8	6,209.0	6,629.3	2,451.2	2,850.7	7,686.1	8,399.9	20,412.2	31,604.5
13. Other income	43.9	54.4	61.5	58.7	6.4	27.6	34.4	63.8	251.9	323.6
Expenditure										
14. Materials, stores and other mfg. expenses	1,856.8	2,713.9	4,365.8	4,964.2	1,625.6	1,826.0	4,369.5	4,888.2	15,653.5	24,205.8
15. Current repairs	104.4	82.4	125.3	135.4	70.4	71.0	524.0	510.7	64.5	88.6
16. Salaries and wages	429.2	522.2	924.1	902.2	273.0	297.3	1,315.7	1,558.2	708.6	1,017.2
17. Welfare expenses	29.3	33.3	117.6	114.5	36.0	28.9	80.1	100.6	47.8	75.2
18. managerial remuneration	0.2	0.1	1.2	0.2	0.5	0.5	—	—	—	—
19. Other expenses	220.3	270.6	172.8	172.6	184.1	180.3	188.3	200.4	1,063.0	1,591.9
20. Depreciation	210.8	333.1	104.4	113.5	103.8	123.8	169.0	343.7	688.5	1,097.7
21. Other provisions	—	—	—	17.0	—	—	—	—	—	—
22. Operating profit (12+13)-(14 to 21)	486.2	1,142.6	459.3	268.4	164.2	350.5	1,073.9	861.9	2,438.2	3,851.7
23. Interest	147.0	177.2	187.4	230.8	127.7	179.2	182.6	161.5	1,314.9	1,097.5
24. Tax provision	121.0	181.0	142.0	3.7	10.0	118.0	530.0	280.0	—	—
25. Profit after tax (22-23-24)	218.2	784.4	129.9	33.9	26.5	53.3	361.3	420.4	1,123.3	1,944.2
Appropriations										
26. Dividends (i+ii)	125.5	151.1	52.4	39.9	74.8	74.8	158.1	158.8	304.9	483.3
(i) Equity	113.9	129.1	50.0	37.5	74.8	74.8	148.5	149.1	301.6	480.0
(ii) Reference	11.6	22.0	2.4	2.4	—	—	9.6	9.7	3.3	3.3
27. Profit retained (25-26)	92.7	633.3	77.5	-6.0	-48.3	-21.5	203.2	261.6	818.4	1,460.9
Total: Value of production & other income (12+13) or Expenses and appropriations (14 to 22)	3,337.2	5,098.2	6,270.5	6,688.0	2,457.6	2,878.3	7,720.5	8,463.7	20,664.1	31,928.1
Operational Indicators (per cent)										
(a) Net worth/total net assets	47.4	51.2	34.2	34.6	51.9	57.0	49.5	47.3	20.9	21.8
(b) Inventories/net sales	37.7	34.3	21.8	23.0	37.9	11.5	23.7	23.9	22.2	28.2
(c) Operating profit/net sales	15.3	23.1	7.3	4.0	7.5	10.6	14.0	10.3	12.0	13.1
(d) Operating profit/total net assets	10.1	19.7	15.7	8.7	5.4	12.6	22.6	15.4	16.1	14.7
(e) Profit after tax/net worth	9.6	26.4	13.0	3.2	1.7	3.4	15.3	15.9	35.3	34.0
(f) Equity earning/equity capital	27.2	100.4	51.1	12.6	3.5	7.1	59.00	68.8	92.9	116.4
(g) Equity dividend	15.0	17.0	20.0	10.0	10.0	10.0	25.0	25.0	25.0	35.0
(h) Equity dividend coverage (No. of times)	1.8	5.9	2.6	1.3	0.4	0.7	2.4	2.8	3.7	3.3
(i) Paid-up value per equity share (Rs.)	100.00	100.00	10.00	10.00	10.00	10.00	100.00	100.00	10.00	10.00
(j) Market price of an equity share (Rs.)	352.00	372.00	39.00	16.75	24.00	17.50	410.00	330.00	101.75	146.00
(k) Gross yield	4.3	4.6	5.1	6.0	4.2	5.7	6.1	7.6	2.5	2.4
(l) Gross fixed assets formation	48.8	17.4	9.6	12.5	8.0	4.1	6.5	17.5	57.8	79.4
(m) Debt/equity	0.44:1	0.35:1	0.20:1	0.25:1	—	0.05:1	0.24:1	0.21:1	0.98:1	0.86:1

Notes: .. Category not applicable

... Amount/Percentage is negligible

— Amount is nil

N.Q. Not quoted

N.A. Not available

The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of various items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments are sometimes made in other items also. Totals may not add up due to rounding off.

EQUITIES

THE WEEK'S PRICE RANGE

(Compiled by Commerce Research Bureau)

TISCO's outlook accelerates

Bombay, June 28

The none-too-happy outlook of Tata Steel for the current year accelerated selling further. Although TISCO earned a peak profit and sales for the year ended March 1982, Mr D Tata visualised a none-too-happy outlook of 1982-83 on account of hike in the cost of production, especially in the case of coal, power, and wages etc. Mr Tata also explained that the platinum jubilee dividend of two per cent for 1981-82 would be a non-repeatable one.

Tata Steel retreated by Rs 49 in two sessions after the release of the working results for 1981-82. The company earned peak profit and maintained the dividend at 15 per cent on the enlarged capital resulting from the bonus issue of two-for-five, apart from the additional jubilee dividend of two per cent. This indicates that the marketmen are more worried about the current outlook rather than the "exceptional" performance of 1981-82.

Tata Engineering slumped by Rs 10 to Rs 400 on reports that there is no waiting period for commercial vehicles because of the credit squeeze. About a few months back there was a waiting period of more than two years in the case of Tata commercial vehicles. The recessionary mood in automobile industry hit other automobile shares. PAL dropped by Rs 15 to Rs 298, Ashok Leyland by Rs 150 to Rs 33 and Hindustan Motors by a rupee to Rs 21.25.

Century retreated by Rs 23 to Rs 947. ACC by Rs 23 to Rs 263, GSFC by Rs 6 to Rs 387, Reliance by Rs 5 to Rs 142, Standard by Rs 13 to Rs 300 and Tata Chemicals by Rs 2 to Rs 48. As a sequel to the import of soda ash under OGL, Tata Chemicals was forced to cut back its production by about 30 per cent according to the company.

In 'B' group, Bajaj Auto declined further by Rs 35 to Rs 1,400, Hindustan Dorr-Oliver by Rs 9 to Rs 89 and Mafatlal Engineering by Rs 8 to Rs 92, below par of Rs 100. Kamani Engineering, however, hardened by Rs 50 to Rs 63.50 on purchase of block of shares by the Goenkas of Lucknow.

In view of the consistent fall in equity prices, BSE imposed special deposit margins on 14 volatile shares to prevent further selling.

	Closing quotations 19-6-82	High	Low	Closing quotations 26-6-82		Closing quotations 19-6-82	High	Low	Closing quotations 26-6-82
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
"A" Group Equity Shares									
A.C.C. (100)	286.00	290.00	251.00	263.00	Ennore Foundries (10)	39.00	39.00	37.00	38.25
Ashok Leyland (10)	34.50	34.75	32.00	33.00	Escorts (10)	36.50	37.00	35.00	35.50
Ballarpur Ind. (10)	36.50	38.00	36.00	36.50	Ferro Alloys (100)	195.00	195.00	185.00	187.50
Baroda Rayon (100)	368.00	374.00	350.00	358.00	FGP (10)	14.25	14.25	13.75	14.25
Bihar Alloy (10)	10.75	11.25	10.75	11.00	Finlay (100)	82.50			82.50*
Bombay Dyeing (25)	62.50	62.50	60.00	62.00	Gammon India (10)	12.25	13.00	12.25	13.00
Century (100)	970.00	982.00	925.00	947.00	Garware Paints (10)	17.50*	18.00	17.00	17.25
Colgate (10)	82.50	85.00	82.50	83.00	German Remedies (10)	32.00	33.50	31.00	33.50
E.I. Hotel (10)	18.00	18.00	17.50	18.00	Gokak (10)	13.75	13.75	13.25	13.50
Garware Nylon (10)	40.50	41.00	40.00	40.50	Great Eastern Shipping (10)	15.00	15.25	14.50	14.75
Guj. State Fert. (100)	393.00	401.00	378.00	387.00	Gujarat Alkali (10)	40.00	40.50	39.00	39.50
Gwalior Rayon (10)	49.50	50.75	49.00	50.00	Gujarat Narmada (10)	9.75	10.00	9.75	9.75
Hind Alum (10)	30.50	30.50	28.50	29.00	Gujarat Steel Tubes (100)	285.00	285.00	275.00	280.00
Hind Lever (10)	49.00	49.00	47.25	48.00xd	Herdilia Chem (10)	20.50*	20.50	20.00	20.00
Hindustan Motor (10)	22.25	22.75	20.75	21.25	Hind Brown (100)	258.75*			258.75*
Indian Dyestuff (100)	180.00	188.50	180.00	180.00	Hind Ferodo (10)	38.75	38.75	32.00	32.00
Indian Organics (10)	29.00	29.00	27.00	27.00	Hindustan Sugar (100)	192.50	192.50	192.50	192.50
Indian Rayon (10)	92.00	94.00	85.00	87.50	Hindustan Spg. (250)	210.00	210.00	180.00	180.00
ITC Ltd (10)	26.75	27.75	26.50	26.75	Hoechst Dyes (10)	23.50			23.50*
J.K. Synthetics (10)	56.00	56.25	54.25	55.25	IDL Chemicals (10)	13.00			13.50*
Larsen & Toubro (10)	46.50	46.75	43.50	45.50	Indian Explosives (10)	21.00	21.00	19.75	20.00
Mahindra & Mahindra (10)	40.50	41.50	37.00	38.00	Indian Hotels (10)	51.00	54.00	51.00	54.00
Metal Box (10)	11.00	11.50	10.75	10.75	Industrial Cables (10)	30.00*			30.00*
Modi Rubber (10)	23.50	24.25	23.00	24.00	Ingersoll Rand (10)	144.00	146.00	134.00	139.00
Motor Industries (100)	235.00	232.50	228.75	232.50	J.K. Cotton (10)	11.50			11.75*
MRFL (10)	17.25	17.25	17.00	17.00	Jayant Paper (100)	135.00*	135.00	131.00	131.00
Mukand Iron (10)	23.25	24.50	21.50	22.50	Jyoti (10)	18.50	18.50	17.50	18.00
National Organic (100)	172.00	174.00	168.00	168.00	Kamani Eng (10)	58.00	65.00	55.50	63.50
Nirlon (10)	34.00	34.75	32.50	33.75	Khand Ferro (100)	120.00	120.00	117.50	120.00
Premier Auto (100)	313.00	323.00	280.00	298.00	Khatau (100)	195.00	200.00	195.00	200.00
Reliance Textile (10)	147.00	145.00	139.00	142.00	Kirloskar Cummins (100)	582.50	586.25	582.50	585.00
Scindia (20)	12.75	13.25	12.50	12.75	Kirloskar Oil (10)	19.50	19.50	18.75	18.75
Shriram Fibres (10)	42.00	42.00	40.00	41.00	Kohinoor Mills (100)	55.00	56.00	55.00	56.00
Siemens India (10)	34.00	35.50	34.00	35.50	Laxmi Vishnu (100)	50.00*			50.00*
Sirpur Paper (10)	18.50	18.75	18.00	18.50	Madura Coats (10)	15.00	15.00	15.00	15.00
South India Viscose (100)	200.00	202.50	197.50	202.50	Mafatlal Eng (100)	100.00	98.00	90.00	92.00
Southern Petro (10)	12.75	12.75	12.35	12.35	Mafatlal Ind (125)	205.00xd	303.75	301.25	303.75
Standard Mills (100)	313.00	319.50	296.00	300.00	Mafatlal Fine (100)	197.50*			197.50*
Staw Products (10)	33.50	35.50	33.50	35.00	Maharashtra Sugar (50)	36.00			36.00*
Swadeshi Mills (100)	141.00			141.00*	Mahindra Ugine (10)	37.50	38.00	36.00	36.00
Tata Chemicals (10)	50.00	50.00	47.00	48.00	Morjee (100)	190.00*			190.00*
Tata Eng & Loco (100)	442.00	450.00	379.00	400.00	Mysore Cement (10)	27.50	27.50	26.50	26.50
Tata Oil (25)	51.50	52.00	50.00	50.50	National Rayon (100)	330.00*	330.00	310.00	310.00
Tata Steel (100)	391.00	409.00	344.00	344.00	New Gr Eastern (100)	70.00*			70.00*
Volgas (100)	236.00	236.00	232.00	234.00	New Stand Eng (100)	95.00	95.00	90.00	95.00
Zenith Steel Pipe (10)	43.00	45.00	41.50	44.50	Otis Elevator (10)	26.00			26.00*
Zuari Agro (10)	19.50	19.25	18.00	18.00	Pfizer (10)	23.75	24.25	23.50	23.50
"B" Group Equity Shares					Phaltan Sugar (50)	26.00*			26.00*
Ahmed Advance (100)	167.50*			167.50*	Podar Mills (10)	5.50*	5.50	5.25	5.25
Ahmedabad Elec (100)	97.50			97.50*	Polychem (50)	48.00	51.00	48.00	50.00
Alkali & Chem (10)	15.25			15.25*	Polyolefins Ind (100)	257.50	256.25	252.50	256.25
Amar Dye-Chem (100)	120.00	120.00	115.00	115.00	Premier Const (60)	88.00*			88.00*
Andhra Valley (100)	104.00	104.00	104.00	104.00	Raghuvanshi (100)	122.50*			122.50*
Asian Cables (100)	130.00	140.00	135.00	140.00	Rallis India (100)	162.50	165.00	162.50	162.50
Assoc Bearing (100)	380.00	385.00	375.00	377.50	Raymond Wool (10)	34.50	35.00	33.00	34.00
Auto Products (10)	10.50	10.50	10.00	10.00	Rohit Pulp (100)	127.50	127.50	127.50	127.50
Bajaj Auto (100)	1435.00	1435.00	1375.00	1400.00	Sandoz (10)	26.00	26.50	25.75	26.00
Bajaj Elec (100)	162.50*	165.00	162.50	165.00	Sandvik Asia (100)	295.00xd	295.00xd	290.00	290.00
Bayer (India) (100)	190.00	187.50	180.00	185.00	Saurashtra Cement (100)	127.50*	132.50	120.00	132.50
BASF (10)	43.00	33.00	31.00	31.00	Shree Dig Cement (100)	242.50*			242.50*
Best & Crompton (10)	29.00	29.50	29.50	29.50	Shree Niwas (100)	75.00*			75.00*
Bhadrachalam Paper (10)	13.00			13.00*	Shree Ram (100)	75.00			75.00*
Bimetal Bearings (10)	25.25	26.00	25.00	25.25	Simplex (50)	60.00	60.00	60.00	60.00
Blue Star (10)	30.50	31.50	30.25	31.50	SLM-Maneklal (100)	143.75	143.75	141.25	143.75
Bombay Burmah (25)	38.00	38.00	37.50	38.00	Special Steels (100)	75.00*			75.00*
Bombay Oxygen (100)	110.00*	110.00	108.75	110.00	Stretch Fibres (10)	8.75*	8.25	7.75	8.25
Bombay Suburban (100)	135.00	137.50	136.25	137.50	Surat Electric (100)	102.00*	102.00	100.00	102.00
Cadbury (10)	22.50	22.50	20.50	20.50	Swadeshi Polytex (10)	14.00	14.00	13.50	13.50
Comphor Allied (100)	182.50	182.50	177.50	177.50	Swan Mills (100)	122.50xd	127.50	120.00	125.00
Ceat Tyres (100)	195.00*	195.00	187.50	192.50	Synthe & Chem (100)	73.00	72.00	68.00	68.00
Central Ind. Spg. (50)	43.00	43.00	41.00	43.00	Tata Hydro (100)	108.50			108.50*
Century Enka (100)	630.00	630.00	615.00	615.00	Tata Mills (25)	16.50	18.00	16.50	18.00
Chemical & Fibres (10)	17.50	17.50	17.00	17.50	Tata Power (100)	110.00*	111.50	110.00	111.50
Colour Chem (100)	182.50	182.50	175.00	182.50	Tata Yodogawa (100)	100.00*	125.00	115.00xd	125.00
Corom Fert (10)	23.00	23.25	23.00	23.00	Tata Finlay (10)	9.25	9.25	9.00	9.00
Crompton Greaves (100)	337.50	337.50	335.00	330.00	Texmaco (10)	45.00*	45.00	40.00	40.00
Cyanamid India (10)	24.00	25.00	23.50	23.50	United Carbon (100)	180.00			180.00*
Dawn Mills (50)	59.00*			59.00*	Vulcan Laval (10)	25.75	26.25	25.50	25.75
Elecon Eng. (10)	28.00xd	28.00xd	26.00	26.00	Walchand Nagar (10)	26.50	25.50	25.50	25.50
Empire Ind. (15)	18.00*			18.00*	Warner Hind (10)	21.00	22.00	20.00	21.50
					West Coast Paper (100)	90.00	92.50	92.50	92.50
					Wimco (10)	11.00	11.00	10.65	11.00

Notes: Figures within brackets indicate the paid-up value of shares

xd = Ex-dividend

cd = Cum-dividend

xr = Ex-right

cr = Cum-right

(a) An asterisk mark after the quotation indicates the closing price of the last official trading and not of the date indicated in the columns.

(b) The dash (—) in the columns for High and Low means that no official trading in the shares had taken place during the period under report.

Market Gossip

Big rise in interest rates?

WORLD financial markets are already worried about the high interest rates prevailing in the United States, which are even affecting the economies of other industrialised countries such as those of West Germany, France and Britain. The European leaders have been pressing President Reagan for a programme, to lower the interest rates but their unanimous demand has made no impact so far on America. And in the assessment of Bank of International Settlements, there would be a further substantial rise in the world interest rates in the second half of the year led by an increase in the US. Central bankers of the industrialised world present for this meeting of Bank for International Settlement also feared that the world savings may be inadequate to meet credit demands from governments and industry. World savings are estimated at \$ 500 billion and the US government credit demand will alone absorb at least \$ 100 billion of this. Bank capital it is feared, may be inadequate to support a large lending increase and the banks are expected to be cautious in their lendings because the present economic recession has weakened the ability of some companies and governments to service their debt.

How to cope with stock exchange speculation

MR R. Ramanathan, president of Madras Stock Exchange had described the spurt of speculative trading in shares. Addressing the annual meeting of Madras Stock Exchange, Mr Ramanathan ascribed the downward tendency in the prices of some selected shares to "the unprecedented perpendicular rise in share prices of several scrips built up on irrational basis and professional rigging by a strong group of bulls" which was too good to last.

Mr Ramanathan has come out with the suggestion that, in order to resuscitate the preference capital market, "dividend outgo on preference shares should be

traded as a tax-deductible expense on the lines of interest on debentures, since preference dividend is a committed obligation. Further, tax concessions ought to be given to new issues of preference shares as also lower rate of deduction at source of tax on preference capital.

Banks under probe

INVESTIGATION has been launched against three banks, which have incurred huge losses running into crores of rupees in foreign exchange transactions. These deals have also brought under cloud some foreign exchange dealers in Bombay, Calcutta, Madras and New Delhi. A section of brokers in Calcutta alleged a preference among the nationalised banks for foreign banks and a few hand-picked brokers. The publication by the Reserve Bank of India every week of the details of interbank transactions of foreign exchange would go a long way towards minimising the possibility of corrupt deals in foreign exchange, according to some brokers, who also suggest that in a bank no person trading in foreign exchange should occupy the position for more than two years at a stretch.

Bullion exchange in Delhi demanded

THE Delhi Bullion Merchants' Association has called for the setting up of a bullion exchange in Delhi to promote healthy trading in the precious metals. According to Mr Krishan Goyal the bullion exchange would help Indian consumers to get silver and gold almost at par with international prices. Delhi is described as the biggest bullion trading centre in the country and one of the largest trading centres in Asia. The daily silver arrival is of the order of about 1,500 kg excluding 10,000 prices of coins. The annual turnover in silver is about Rs 100 crores. Delhi's century-old bullion exchange was closed by the government on January 9, 1963. A demand has also been made to set up a refinery for precious metals in Delhi.

Air India victims to receive \$ 75,000 each

AIR India is reported to have decided to raise the compensation paid to aircrash victims from \$ 20,000 per victim to \$ 75,000 per victim in the case of those (numbering 17) who died in the recent crash of an Air India Boeing at the Bombay airport.

Jute mills to cut back production

THE jute mills in West Bengal have decided to suspend production for four hours every day in the evening. Earlier the State Government had turned down the proposal for the block closure of jute mills. The ostensible reason for the four-hour suspension of production is stated to be the non-availability of power to the jute mills from the state power grid, following the promulgation of the West Bengal Energy Control Order. The jute mills mostly have captive power generation sets. According to the mill sources, the power from the captive generation sets is seven times more costly than power available from the state grid. Sixteen jute mills in the State have remained closed for quite some time. The Bengal Chatkal Mazdoor Union and the Federation of Chatkal Mazdoor Union in separate statements have condemned the decision to stop production for four hours every evening.

Divergent views on imports

MR. J. R. D. Tata, Chairman, Tata Iron & Steel Company Ltd, while talking to newsmen in Bombay on June 24, was critical of liberal imports and said that unreasonable imports should not be allowed and that an increase in imports duty was justified. The Federation of Indian Export Organisations (FIEO), in a memorandum to the Union Ministry of Commerce, has called for a liberalisation of the import policy to permit export houses to import items which are restricted. The concessions are desired for 300 out of 1400 houses in the country.

COMMODITIES

Declining trend in cotton

Bombay, June 28

A declining trend in prices prevailed trading conditions in cotton during the last week. There has been a subtle change in the stance of the textile union that has called the textile strike as also in that of the millowners. This goes by the statement made by the chairman of the Bombay Millowners' Association.

He has stated that "the demands of the workers may be referred by the State Government to the arbitration of the industrial court under section 73 of the Bombay Industrial Relations Act 1946 if all the trade union leaders gracefully accept such reference and withdraw the strike".

The aggregate loss on account of the strike has been computed at Rs 1,070 crores so far comprising production loss, export loss, wage loss, revenue loss and standing charges paid by the industry.

The Indian Cotton Mills' Federation has welcomed the Government's decision to reduce the effective rates of excise duties of cotton fabrics to the average count of yarn between 41's and 50's. The decision would induce mills to go in for higher consumption of long and extra long staple cotton. The Indian Cotton Mills' Federation (ICMF) has suggested that the rationalisation of excise duty structure should be carried out in a piecemeal fashion by dropping the count restriction altogether.

The ICMF has also made out a strong case for reduction of import duty on viscose staple fibre in order to exercise proper restraint on the price trend of indigenous staple fibre. It has also reiterated the need for continuing the present policy of import of viscose staple fibre under GL to maintain adequate supplies.

The following has been the trend in prices of some of the leading varieties of cotton:

Rising trend in yarn

Bombay, June 28

A rising trend was noticed in the local yarn market during the past week. The prices of 150D NRC, 120D NRC, 150D CR and 120D CR increased by 15 paise, 29 paise, 27 paise and 29 paise to Rs 53.56, Rs 55.62, Rs 53.13 and Rs 56.17 respectively. The prices of 100D SIV and 150D acetate, however, remained steady at Rs 62.78 and Rs 49.56 respectively.

Groundnut down, oil up

Bombay, June 28

Groundnut and its oil showed a divergent trend in the oilseeds market last week with the former declining and the latter moving up. Groundnut Karad bold, Saurashtra bold and Saurashtra quality dropped by Rs 20 each to Rs 610, Rs 615 and Rs 615 per 100 kg. Its oil, however, hardened further on the slow progress of the monsoon. The price was marked up by Rs 3.64 to Rs 141.96 per 10 kg.

Castorseed and its oil gathered further momentum on scattered inquiries from shippers. Castorseed Madras small and Kanpur bold moved up by Rs 4 each to Rs 346 and Rs 336 per 100 kg. Castor commercial oil gained Rs 1.25 at Rs 74 and BSS oil Rs 2.25 at Rs 80 per 10 kg.

Linseed improved by Rs 10 to Rs 460 per 100 kg and its oil by Rs 2.84 to Rs 111 per 10 kg.

Activity in cakes was poor.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:—

	25-6-82	18-6-82
G. nut Karad bold	610.00	630.00
G. nut oil	141.96	138.32
Cast. Md. Sm.	346.00	342.00
Cast. oil com.	74.00	72.75
Cast. oil BSS	80.00	77.75
Linseed bold	460.00	450.00
Linseed oil	111.00	108.16

(Rs per candy)

	June 25	June 19
Digvijay	4,425—4,500	4,400—4,600
Kalyan	3,700—3,800	3,850—3,925
Saurashtra CO2	3,800—4,000	3,700—4,000
Shankar 4	5,000—5,500	5,000—5,500
Maharashtra H4	4,800	4,800—4,800
Maharashtra Y1	4,400	4,500—5,500
Maharashtra		
Varalaxmi	4,800	
MP Y1	4,100—4,200	4,100—4,200
MP A5/91	4,350—4,400	
MCU 5 Guntur	5,400—5,450	5,200—5,400

KIRLOSKAR KISAN EQUIPMENT LIMITED

REGISTERED OFFICE, KARVE ROAD,
KOTHRUD, PUNE 411 029

NOTICE

(Under Section 21, sub-section (1) of the Monopolies and Restrictive Trade Practices Act 1969, read with 4A of MRTP Rules 1971.)

It is hereby notified for the information of the public that KIRLOSKAR KISAN EQUIPMENT LIMITED proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a Notice under sub-section (1) of section 21 of the Monopolies and Restrictive Trade Practices Act 1969, for substantial expansion of its activities. Brief particulars of the proposal are as under:—

(i) Name(s) of person(s)/body corporate owning the undertaking The undertaking is owned by KIRLOSKAR KISAN EQUIPMENT LIMITED — a body corporate

(ii) Capital structure of the applicant undertaking Capital structure of the applicant i.e. KIRLOSKAR KISAN EQUIPMENT LTD. is as follows:

AUTHORISED CAPITAL

1,00,000 Equity shares
of Rs 100/— each 1,00,00,000
50,000 preference
shares of Rs 100/—
each 50,00,000
1,50,00,000

ISSUED & SUBSCRIBED CAPITAL

15,000 Equity Shares of
Rs 100/— each fully
paid 15,00,000

(iii) Details of the proposed substantial expansion.

(a) Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered

1) Precision components in Plastic/elastomers

(b) In the case of substantial expansion of existing activities:—

2) Hydro-Dynamic seals

(i) Name of goods

(ii) Capacity before expansion

(iii) Expansion proposed

(iv) Location of the project for substantial expansion

(v) Brief outline of the cost of the project, the scheme and sources of finance

Substantial expansion proposed is not in the existing activities and hence 'NOT APPLICABLE'

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

For KIRLOSKAR KISAN EQUIPMENT LIMITED

(A.K. GARUD)

ASSISTANT SECRETARY

Dated. 3rd July, 1982

NOTICE

ESCORTS LIMITED

It is hereby notified for the information of the public that ESCORTS LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi under Sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for the production, supply, distribution or control of Light Commercial Vehicles, both cab and pick-up vans, (A) diesel version capacity 1000 cc to 3000 cc, approximate pay-load 1 ton to 2 tons and (B) petrol version, capacity 900 cc to 1300 cc, approximate pay-load 700 kgs to 950 kgs, with total capacity of 60,000 vehicles per annum. Other particulars of the proposed new undertaking are as under: --

- (i) Name of the proposed undertaking:
The proposed undertaking will be a Division of Escorts Limited.
- (ii) Name(s) of persons or authority/authorities proposing to establish the new undertaking.
Escorts Limited
- (a) Management structure of the applicant undertaking.
The Board of Directors of the applicant undertaking comprises of:
- | | |
|---------------------------------|---|
| Mr. H. P. Nanda, | Chairman and Managing Director, |
| Mr. Rajan Nanda, | Vice-Chairman and Joint Managing Director |
| Mr. C. K. Hazari, | Joint Managing Director |
| Mr. Anil Nanda, | Joint Managing Director |
| Dr. Bharat Ram | |
| Mr. D. N. Davar | |
| Mr. S. Bhoothalingam | |
| Mr. J. M. Shrinagesh | |
| Sodhi Kartar Singh | |
| Mr. S. N. Bilgrami | |
| Prof. Ravi John Matthai | |
| Mr. S. Ranganathan | |
| Field Marshal Sam Manekshaw, MC | |
| Mr. Parmeshwar Sahai | |
| Mr. S. Hariharan | |
- (b) Management structure of the proposed undertaking.
Same as the applicant undertaking.
- (iii) Capital Structure — (Rs. in Lakhs)
- | | | |
|-------------------------------|------------------------------------|---------|
| (a) The Applicant Undertaking | Authorised Capital | 2000.00 |
| | Issued Capital | 1420.72 |
| | Subscribed and Paid-up capital | 1418.41 |
| (b) The proposed undertaking | Same as the applicant undertaking. | |
- (iv) Proposed location of the new undertaking.
In an approved backward district/area in the State of Uttar Pradesh.
- (v) Brief outline of the cost of project, the scheme and source of finance.
The capital cost of the project is estimated at Rs 80.00 crores. It is proposed to finance the project partly by issue of debentures/Right Equity shares, retained earnings of the Company and partly by deferred payment credits from the suppliers.

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi under advice to the Company within 14 days from the date of publication of this Notice intimating his views on the proposal and indicating the nature of his interest therein.

For ESCORTS LIMITED

(CHARANJIT SINGH)
Vice-President and Secretary

Registered Office
H-2, Connaught Circus
New Delhi 110 001

Dated: 22nd June, 1982

Grains slack

Bombay, June 28

A quiet tendency featured trading in grains in the local market.

In cereals, wheat (Sehori Pissi) ruled steady at Rs 285-350 per quintal. Superior varieties, though in short supply, were not in demand. The Sonakalyan variety firmed up by Rs 18 to Rs 210-225 per quintal. The inflow of wheat from Madhya Pradesh was satisfactory. Flour mills were active buyers of inferior varieties.

Activity in rice was limited owing to the fag end of the season. Demand was slack. Supplies from South India were good. The undertone was steady. The Basmati variety was traded at Rs 750-825 per quintal and the Surti Kolam variety at Rs 380-420 per quintal showing no change over the week.

In coarse grains, prices ruled steady on account of limited arrivals and slack demand. Advices from producing centres were steady. Jowar was quoted at Rs 150-225 per quintal, bajra at Rs 170-260 per quintal, maize at Rs 162 per quintal and barley at Rs 125 per quintal.

Among pulses, gram dal was offered at Rs 20-25 lower at Rs 320-335 per quintal due to poor demand and good arrivals. The inflow averaged 900-1,000 bags of gram dal. Moong (chumki) ruled steady at Rs 375-380 per quintal. Masoor dal declined by Rs 7 to Rs 370-385 per quintal. Tur dal and urad (moglai)

maintained last week's levels at Rs 400-560 per quintal and Rs 240-275 per quintal respectively.

Money comfortable

Bombay, June 28

Conditions in the Bombay short term money market were comfortable during the past week. Interest rates opened at 8.5 per cent and eased to the week's low of 4.5 per cent on June 25. However, the rate moved up to 8.5 per cent at the close of the week.

Silver up, gold down

Bombay, June 28

The price of silver went up while that of gold declined in the Bombay bullion market during the past week. Ready silver (.999 fineness) opened at Rs 2,520 per kg and closed at Rs 2,590 per kg. Standard mint gold opened at Rs 1,650 per 10 gms and closed at Rs 1,645 per 10 gms.

Aggregate deposits increase

Bombay, June 28

Aggregate deposits of all scheduled commercial banks increased by Rs 78.01 crores to Rs 44,726.01 crores during the week ended June 18, 1982. Bank credit expanded by Rs 35.74 crores to Rs 29,865.15 crores. The balances of banks with the Reserve Bank of India (RBI) declined by Rs 175.32 crores to Rs 4,735.59 crores and their borrowings from the RBI by Rs 5.25 crores to Rs 571.95 crores.

HOW COMMODITIES MOVED

(Rs per quintal*)

Commodity/	Market	June 26, 1982	A week ago
Groundnut	(Rajkot)	467	467
Rapeseed	(Kanpur)	383	383
Sesamum	(Delhi)	683	700
Castorseed	(Kanpur)	263	263
Linseed	(Kanpur)	439	439
Sugar	(Bombay)	(a) 526	522
Cotton	(Bombay)	(b) 3,175	3,175
Jute	(Calcutta)	(c) 240	240
Aluminium	(Bombay)	(d) 1,605	1,610
Copper	(Bombay)	(e) 2,945	3,020
Lead	(Calcutta)	(f) 1,075	1,100
Zinc	(Calcutta)	(g) 1,700	1,710
Gold	(Bombay)	(h) 1,635	1,650
Silver	(Bombay)	(i) 2,590	2,542
Caustic soda	(Bombay)	(j) 600	600
Soda ash	(Bombay)	(k) 214	214

*In terms of 10 gm for gold, kg for silver and candy for cotton

(a) C-30, (b) C-73, (c) W-5, (d) Scrap, (e) Wire bar, (f) Ingot, (g) Hard spelter, (h) Standard, (i) .996, (j) Flakes, and (k) Tata

COMMERCE

12 JUL 1982

OF THE LANCET

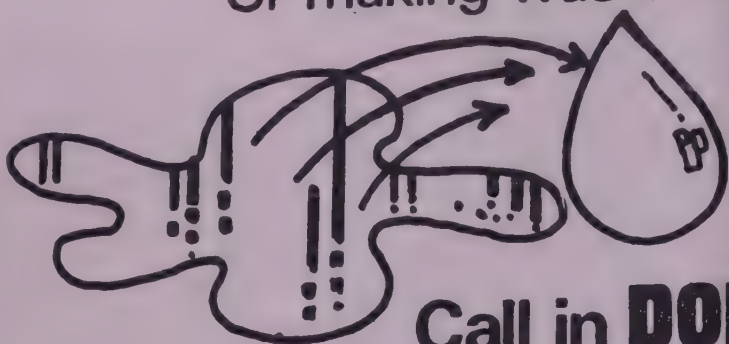
A SURVEY

VOL. 145 No. 3708 Bombay, July 3 1982

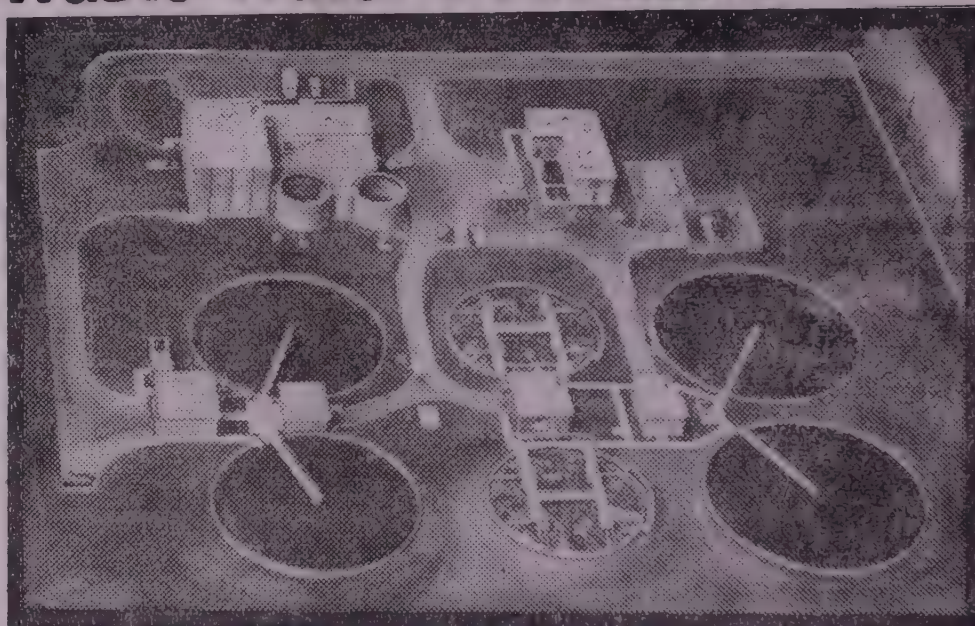
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Programme to control industrial pollution

By RASHMI MAYUR

SINCE the Stockholm conference on Human Environment a decade ago, great strides have been made in the western world to control pollution and make environment livable after three hundred years of degradation. In the developing countries, however, the reverse situation exists. Most of these countries are in a hurry to industrialise in order to meet the basic needs of their burgeoning population. There is also an attempt to catch up with the economic development in the highly industrialised countries. In this respect India, as a less industrialised country, is not an exception.

Rapid urbanisation and increasing concentration of industries in cities have wreaked a havoc to the environment, resulting in an unparalleled deterioration of the quality of life. Air, water and soil have undergone tremendous changes not only in metropolitan areas but also in the far reaches of the rural ecology. In a broad sense, the vast coastlines, particularly near major cities, rivers, streams and lakes are polluted; massive criminal deforestation in the Western Ghats, Assam and the Himalayas is in rampage; air in most of the metropolitan areas is contaminated and foul; and the noise level in most of the cities has made living disquieting.

Thus it is clear that pollution, as a negative and harmful element in environment, has become a serious and insidious problem in India. It is only lately that the growing concern about protection of the environment has been expressed. There are a large number of citizens' groups and professional organisations that are campaigning for better environment and pollution control. In 1974 the Water Prevention and Control of Pollution Act was passed. Under this Act standards for effluent discharges by different industries and enforcement machineries have been set up. Fortunately now we also have the Ministry of Environment at the Centre, which means, at last it will be possible to co-ordinate all the environmental efforts in a unified manner. The Government of India has also formulated the National Environment Policy for the

protection of environment, conservation of nature, planning human settlements and managing resources.

Poverty or pollution?

It is tragic that the living environment in cities and towns is being made unfit for human living. The situation is immensely serious. Of course, there are cynics who question: What is more important—poverty or pollution?

According to these cynics pollution is inevitable for the sake of industrial

The continued pollution of the earth, if unchecked, will eventually destroy the fitness of this planet as a place for human life...Nuclear war...would reduce (combatant nations) to chaotic remnants, incapable of supporting an organised effort for recovery...world-wide radioactive contamination, epidemics, ecological disasters, and possibly climatic changes would so gravely affect the stability of the biosphere as to threaten human survival everywhere on the earth.

—Barry Commoner

development in the Third World. That is the price to be paid for economic progress. Pollution and poverty are contradictory and accordingly the worst form of pollution is poverty. This developmental confusion is at the root of the environmental crises facing developing countries.

The quality of surface and ground water on which 90 per cent of the rural population depend continues to deteriorate because of industrial and urban pollution. Although the Water Pollution Act was passed in 1974, very few areas are free from the problems of water pollution.

The industrial pollutants discharged in rivers, streams and even on the land have destroyed aquatic life in many parts of India, as have also threatened rural communities utilising river and ground waters around the country. Unfortunately we still do not have inventories of types and quantities of industrial discharges, not to speak about the detailed account of their impact on human health

and on the intricate and fragile ecosystem.

Major polluting industries

It is important to measure these discharges by such parameters as biological oxygen demand (BOD), chemical oxygen demand (COD) and suspended solids. The major industries polluting waters are identified as tanning, chemical, fertilisers and allied processes, refineries, papers and pulp, sugar and distilleries, textile dyeing and bleaching etc.

During a recent survey in Maharashtra we were shocked to notice a high degree of water pollution due to several types of industries like sugar and distilleries, paper and pulp, chemicals and fertilisers despite efforts by the Maharashtra Pollution Board to control pollution.

In Tamil Nadu, where the water resources are limited, large scale industrialisation with limited control of discharges of effluent, has damaged not only the aquatic life in the river Cauvery but also the ground water sources due to seepages.

In the absence of laws concerning disposal of solid waste generated by industries, the situation is becoming equally critical.

The toxic waste from chemical industries is disposed of without any planning, creating health hazards. Some of the waste may take centuries to degrade. Many a time solid waste is washed away polluting ground water and other surface water bodies.

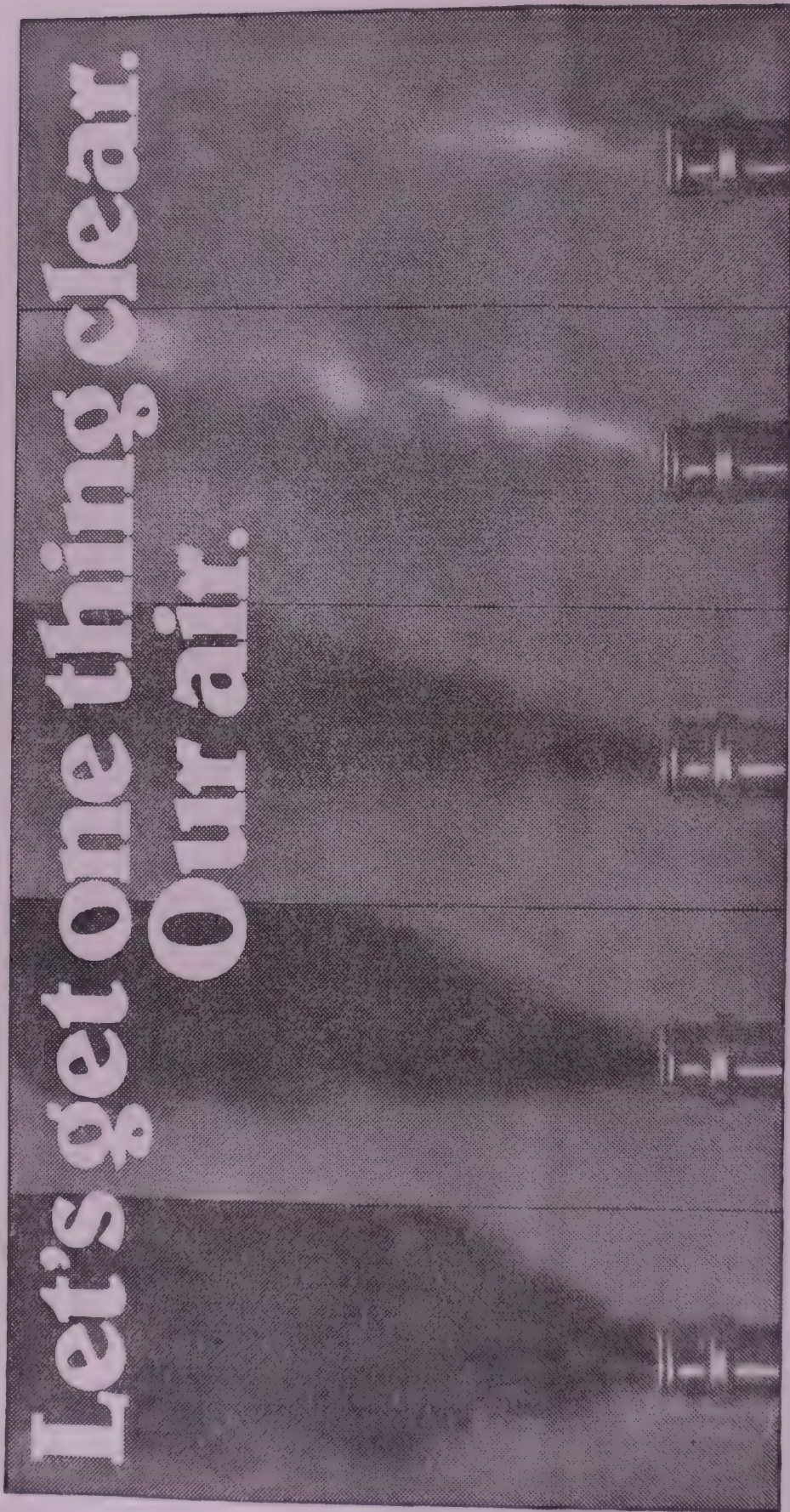
The problem of organic waste, collected in open refuse dumps is ubiquitous. When these organic materials decompose, they become breeding grounds for rodents and insects, posing serious threat to health as well as severe nuisance of odours.

High level of noise

Some industries, including engineering and machine-tool plants, create a high level of noise, which threatens the health of workers when they are exposed to it for long time. Now it is well recognised that noise pollution can lead to deafness, insomnia, hypertension, dilation of eyes and to many other risks to the workers health. Again, no signifi-

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ant efforts have been made by industries to control the menace of noise.

It is not our objective here to identify all the sources, types and effects of air, water and soil pollution. Extensive literature on the subject is available. However, the main culprits are innumerable: industrial processes, mining, power production, refuse burning, pesticides, construction activities, transportation, urban sewage and garbage and finally the nuclear plants. Now we do have laws as well as wide array of technologies to control pollution hazards.

Low cost pollution treatment techniques, redesigning production system, changing or substituting raw materials, reusing or recycling waste, neutralising effluents and use of bio-technologies can solve at least 80 per cent of the problem of environmental degradation. For the toxic and poisonous waste, which cannot be treated, the only answer is the safe and well-protected burial. It is evident that while the cost to industries will increase, in the long run the social and aesthetic impact will be definitely positive.

It is simply not possible to stop the march of industrial growth and urbanisation. The most fundamental questions are: What kind of industrialisation do we want? What price do we want to pay? How much pollution can we tolerate without damaging the general health of the people? Are there alternative models of development? No matter what answers we give to the above questions, one fact is clear that all our progress will be worthless if we destroy the life support system on which depends our survival.

We must put the environmental issues as part of the national agenda of priorities. Our approach has to be systematic and total recognising that in a poor country optional decisions imply maximisation of production, protection of health and effective utilisation of resources.

Comprehensive legislation

Here is one model which can be considered.

Now that the Environmental Ministry has been set up, the foremost task of the ministry should be to prepare a comprehensive pollution control legislation. Simultaneously a strong machinery for enforcement should be set up at the local and national level. Since pollution does not know boundaries, there should be extensive coordination of all the agencies at different levels.

Then we need a national plan for industrial development by which location of industries should be so defined that it reduces the environmental damage to the minimum.

Industrial development should be integrated within the urban and rural

planning framework. In other words, while considering the complementarity of several types of industries, their size and scope, we must emphasise employment potential and pattern of settlement.

We need an exhaustive list of standards concerning the discharge of pollutants for each industry and every production process. National quality of environment should be set based on the acceptable and enforceable standards.

An environmental impact statement should be submitted for each major industrial development plan. There should be public hearings on the statement before it is finalised for implementation.

Production technologies and raw materials for different industries should be evaluated in terms of pollution load alternatives and system of pollution control either at the source or at the point of discharge.

Documents providing broad information concerning pollution control should be available to industries at reasonable cost and pollution monitoring laboratories should be set up to regularly monitor level, type, sources and impact of pollution and publish reports for public.

Many techniques of controlling, reducing or eliminating contaminated discharges are available. Some of the techniques of air pollution control are: wet scrubbers, electrostatic precipitators, filters or chemical conversion processes.

Similarly waste water can be treated by combining industrial and municipal waste, neutralisation, reverse osmosis, activated sludge treatment, lagooning, precipitation etc. Since we have extensive sunlight, we must use it for water pollution control.

Organic solid waste can be composted. The poisonous waste should be buried in the well-protected areas.

Noise pollution can be controlled by noise-suppressants, ear mufflers and proper maintenance of machinery.

Wherever possible resource recovery, as in the case of sulphur or mercury, should be enforced. If possible waste can be reused or new byproducts can be recovered from it.

Massive research and development efforts should be instituted in the institutes of higher learning and by the government so that appropriate, low-cost and effective methods of pollution control can be invented.

Extensive training programmes should be set up to prepare technicians and scientists in pollution control for different types of industries.

Ultimately the public must be educated about the implications of pollution control programmes if they have to in-

fluence the policies for the national environmental protection.

Conclusion

In a country with limited resources, it is not possible to expect miracles. The Second Environmental Decade is critical in terms of whether we shall succeed in bringing harmony between man and nature in India or whether we leave a disastrous environmental heritage for the future generations. Problems are paramount and the task is uphill. Unless the government, people, professionals and industrial managers put concerted efforts, we shall find ourselves in an inferno of vastly poisonous world, which will ultimately doom our civilisation.

We need an environmental ethics and passion, which will become part of our developmental policies for entering the modern age with all the complex challenges. None of our efforts, however, will succeed if we fail to control the population, unplanned industrialisation, wastage of scarce resources and megapolitisation of our cities. Finally, we must safeguard all the other species, who share the same planet with us and on whom ultimately depends our survival.

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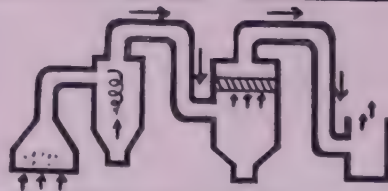
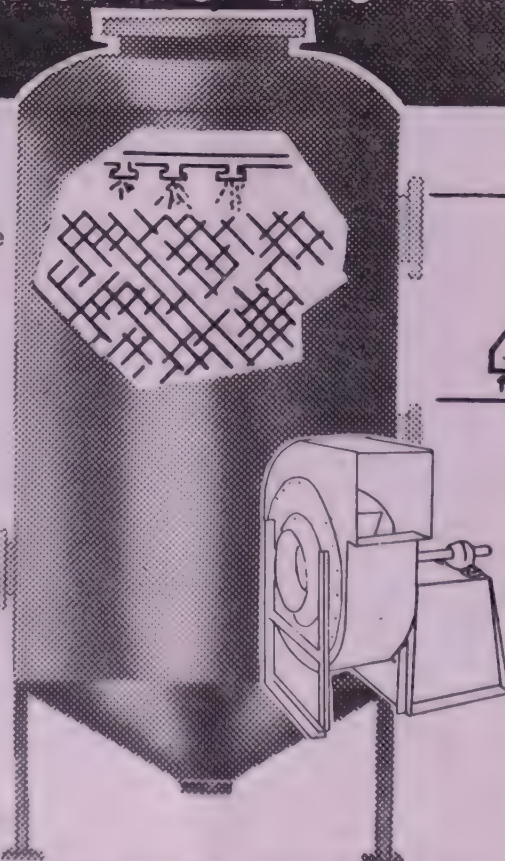
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Cost reduction methods for pollution control

By A. GUHA

AT the very outset, rather than going straight into the subject, let us find out how the air is polluted and which are the main agencies contributing to such pollution. The air is polluted due to various operations conducted in different fields. The main two agencies contributing to such pollution could be categorised as—Industrial and Social.

In the industrial field, there are a number of pollutants such as gas, particulate matters etc and in social category there are domestic refuse and obnoxious gases emitted from garbage heaps and open drains. Another pollutant, which is most common today, is the automobile exhaust.

In order to arrest such pollution in the above fields a number of equipment have been in use in our country. By means of such equipment, apart from disposal of pollutants, recycling of waste could also be done. In case of automobile exhaust system, suitable gadgets could also be provided which will not only arrest pollution but also will reduce fuel consumption.

As regards cost reduction methods for prevention and control of air pollution are concerned, at present there are no central agencies to make effective recommendations to various industries or agencies creating pollution—this article broadly deals with possible areas of cost reduction which could be attempted.

Having acquainted ourselves with the sources of pollution, let us now discuss how best the cost can be reduced by implementing certain methods for prevention and control of pollution.

Process development

This is a function involving research, technological innovation, design, development and continuous updating based on experience and

results obtained. In practice we observe that once an industry is established very little attempt, to speak of, is made to improve the standards of efficiency. If at all such efficiency improvements are considered, the same are mainly to increase production, relegating to the background the need for effective control of pollution. Possibly industries established later have taken advantage of technological improvements but unless and until updated technology are incorporated, in the long-run, cost reduction is not possible. In so far as air pollution is concerned, the attempt should be to reduce the emission rate at the source and this can well be achieved by a process development in its totality. This is not to say that this is an easy job but concerted attempts should be made such that the objective is kept in view from the initial stage. For this purpose the source of pollution could be either from stationary sources or from moving sources. We see cement mills generating 600 gm of dust per cubic metre of air on the one hand and at the same time on the other there are mills generating between 150—200 gm per cubic metre. The reasons could be many, but if one considers the emission rates obtained between 150—200 gm per cubic metre, then obviously in the case of high dust emission/mills, the cost of a dust collector for example will naturally be very high, whereas the same type of equipment could be applied by selecting a smaller size and which will result in reducing the cost but still achieving a lower rate of emission. This is a process design job.

Running/maintenance/operating cost

Here we have to consider power, spare parts, man-power, etc. involved. In other words proper training to maintain the equipment is of utmost importance and which alone will reduce the cost on power,

spare parts and allied expenses. Efficient maintenance, though considered important, in actual practice it would appear that not all industries have the requisite paraphernalia for this purpose, which directly increases spare parts inventory, power consumption bills resulting in additional but avoidable extra cost. In other words the method of cost reduction lies in efficient preventive maintenance and of course after-sales-service by manufacturers.

Apart from the saving mentioned, incorporation of improved process design will increase the longevity of equipment. Although in the past such Air Pollution Control equipment were considered non-productive, with the introduction of The Air (Prevention and Control of Pollution) Act an increased awareness has come to stay which will of necessity call for deeper investigation in the process designs, as ultimately the aim is not only to achieve cost reduction or waste saving, but also the more important obligation to the society and the environment resulting in safeguarding the inhabitants' health as well as the greenaries etc in and around such industrial set-ups.

Waste-heat recovery

Simply stated it is process which helps re-cycling of accumulated waste material to useful purposes. In doing so pollutants are generated and which must be arrested before it is passed out into the air. This also involves selection of proper equipment for treating waste as well as arresting pollutants. The heat generated in the process will also have to be channelised to useful purposes. Whereas some industries collect the dust and convert the same into saleable goods there are others which produce waste which could be converted into useful byproducts. We have in hand example of gobar gas plant where gas is converted in-

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to mechanical energy and then finally to electrical energy.

Incinerators

In developed countries incinerators are used to advantage for safe disposal of garbages. Smaller incinerators are also available for the purpose in hospitals. The usage of incinerator creates pollution. The heat generated could be utilised beneficially and ultimately the burnt garbages could serve as efficient fertiliser. The gas or polluted air could be treated, made clean and discharged into the atmosphere. Although the initial cost may be high, in the long-run, this will result in all-round saving and will help in having a cleaner city with better atmosphere.

Thus, overall waste-heat recovery serves as a method of cost reduction.

High temperature-process

In certain applications high temperature gas is generated in the process and before it is exhausted into the atmosphere the pollutants are taken out through different pollution control equipment, the most important of which being electrostatic precipitator without a conditioning tower depending upon the type of materials or pollutants it handles. This is common efficient pollution control equipment which can maintain the emission level as per standards. However, emission standards at similar levels could more or less be also achieved with the help of bag filters giving a reduction in the initial investment. To introduce bag filters for such special applications, there is need for closer collaboration between the manufacturers and the end-user industries to satisfy the technical aspects/advantages and its acceptability. In practice the end-users prefer to go in for stereo-type equipment and hence introduction of sophisticated bag filters has not come up to such a level to give cost advantage to the industry.

Roughly there will be a reduction of 30 per cent in the initial cost but since the result of special bag filter application although fully developed has not found its way in all the fields of industrial applications, initially the cost will show an increasing trend. The reasons are the current lack of demand and the cost of filter media, which again has not been fully developed in this country.

As soon as the development in collaboration with end-user industry is completed and the demand rises the cost of the filter media, which is the major cost of any bag filter, is expected to show a downward trend. This will ultimately result in reduced cost. In fact it is expected that after two years of successful installations and increased demand the cost difference between and ESP and bag filter could be any thing between 30 to 40 per cent, efficiency remaining more or less the same. The basic criteria is technical aptitude as well as the capability of the end-user industry which will make a success in introducing a product of this nature and which alone could prove that such an installation trial would not only reduce the cost but will also open up new markets for special applications of bag filters. This will in the longer-run automatically reduce the installation cost also although there is likely to be a marginal increase in the maintenance/operation cost.

Equipment cost

Shown in the annexure are costs of different types of pollution control equipment in general vis-a-vis their efficiency, difference in cost and operating and maintenance cost. Apart from this, in some of the applications of these equipment there will be significant recovery value justifying higher initial installation cost.

As already explained above, the installation cost could be reduced by improving the process design, equipment design etc which reduces generation of pollutants along with gas quantity. This reduction of pollutants and gas quantity calls for reduced sizing, and will ultimately result in reduced installation cost.

Since this particular subject of air pollution prevention and control is very wide and allied with all the branches of engineering, the purpose of writing this article is to make an appeal to all the engineers, process designers, equipment designers and application engineers to devote themselves for improvement of their particular branches of engineering so that, while implementing pollution control and prevention methods, the cost of equipment and the system could be reduced to achieve the desired outlet dust concentration in order to minimise the pollution level. In the process the user, the industrialist etc will be able to make use of pollution control methods honestly/sincerely rather than adopting to other methods due to prohibitive cost so as to keep the records clean as well as in line with the regulations. Thus, it is the engineer who is to educate, organise and develop his own field so that the society is benefited by implementing pollution control methods otherwise the industrialist or the user will resort to other methods thereby endangering the environment and the society.

ANNEXURE

Estimation of comparison of installation and maintenance cost of particulate control equipment

Method	Efficiency per cent by weight	Installed cost per metre cubic per hour (in Rs.)	Maintenance cost (in Rs.) per metre cubic per hour.
Dry device			
Bag Filter	99+	12-16	2
Bag Filter suitable for high temperature (250° C)	99+	22-42	3
Gravity chamber	40-60	2-6	1
Cyclone			
General application	65-85	7-10	1
Fly ash	60-85	3-5	2
Refractory kiln process	70-85	14-26	2
Electrostatic precipitator			
Single stage	90-99.9	30-60	1
Two stage	90-99.9	25-45	1
Special application	95-99+	70-150	1.25
Wet device			
Spray chamber		5-9	
Cyclone scrubber		10-20	
Ventury scrubber		10-25	
Packed bed scrubber		8-16	
			1.25

Air pollution: Technologies to choose from

By V. KANNAN and R. NATARAJAN

LIFE in the biosphere has been sustaining itself for more than a billion years, but the sudden onslaught of growth using modern technology is fast creating environmental decay posing a serious threat to the basic necessity of life air itself. In a country like India which is on the verge of transformation from a developing to a developed country, one cannot hope to retard this growth and thus the only alternative is to adapt various air pollution control techniques. This has been duly recognised by our Government and the Air (Prevention and Control of Pollution) Act 1981 was promulgated in May last year.

Fortunately for us, we have a huge array of technology available with us combined with the experience the developed nations faced while attempting to solve their air pollution problem. The credit however this time goes to modern technology for having provided innovative methods for combating air pollution. Realistically speaking, air pollution control in most cases constitutes a deficit operation and is looked upon as "money down the drain" but what one fails to notice is the fact that air pollution is a destructive element and it should not be tied to the cost aspect of preventing further destruction. This field being relatively new in the country, with laws only just being enforced, it is not surprising that many industrialists who are keen on installing pollution control devices have the problem of making a proper choice of control equipment for their needs, specially in view of the fact that the market is flooded with many technological devices for controlling air pollution.

We shall deal here mainly with the array of equipment available in

the market which may form a guideline for proper selection of the control strategy. It is of course understood that a combination of systems may have to be used depending on the type of pollutant and the required degree of removal efficiency sought.

Sources

Air pollutants are mainly dust particles and gases either inert or active which can get further oxidized. Aerosols, fumes, product of incomplete combustion consisting of org. matters, SO_x, CO, NO_x form other pollutants from the industries.

Major source of these pollutants is chemical industries specially, cement, coal, ferrous and iron ferrous, metallurgical industries, fertiliser industries, mining, thermal power plants, petroleum, textile and paper, heavy chemicals industries. The nature of pollutant from each of these industries is different and so will be the control strategy to be adapted. They all exude particulate matters as dust, fumes, mist or smoke and gases, vapours, irritants, and toxics. There have been cases of some of these toxics reaching near lethal levels in the atmosphere. So it is imperative to control the emission of these toxics and more often than not it has to be done through additional equipment meant for this purpose rather than inplant process control.

Control technology

The choice of any particular treatment technology would depend on the characteristics, concentration and size distribution of the pollutants and the desired removal/collection efficiency that can be achieved *vis-a-vis* the energy required and the ultimate disposal method. Realistically, control system with low first cost at reasonably effective performance level shall decide the system. Broadly speaking two basic approaches to control air pollution are process charges and installation of final con-

trol element. Here we shall confine to the latter approach.

Particulates collection equipment

For all particulate collection, the mechanism involves applied force, the simple being the gravitational followed by centrifugal and electrical mechanism. Further, depending on the particle size, the collection mechanism involves three separate related forces *viz.* impaction, interception and diffusion.

The basic particulate separation system is gravity settlers and is restricted to particles greater than 50 in diameter and for large masses of particles as an initial separation method. The flow is essentially laminar and has long residence time. The principle behind is to reduce the velocity to a sufficiently low value for a required time to allow the particles to settle. The collection efficiency can be increased considerably by adding baffles whereby the flow follows a redirected path thereby increasing the collection by impaction. The pressure drop through the system is less than 25 mm to a maximum of 250 mm of water. These are essentially ineffective for removal of particles below 30° in size. Apart from low capital cost, this system requires minimum maintenance.

Centrifugal collectors

These are a class of collectors based on the principle that particles having greater density offer more resistance to change in the direction of flow and the more rapid the direction change, the more the chance for the particles to be thrown out for collection. Under this category comes the cyclone separators. This is the most widely used dust collection system wherein the dust laden gas enters a tapered cylindrical chamber tangentially which imparts a rotational movement to the stream. The inlet gas then follows a double vortex path, spiraling downward at

Dr Kannan and Mr Natarajan belong to Hindustan Dorr-Oliver Limited. This was a paper submitted by the authors at a seminar organised by AI MO.

the outside and upward at the inside for high efficiency for large particles to the gas outlet.

The downward motion assisted by the gravity and particle density carries the particulates downward to the bin for dust removal. The vortex created forces the particles towards the apex where they lose some of their kinetic energy and fall out of the gas stream. These are units without moving parts. They have a low efficiency for small particles and a high efficiency for large particles. For high efficiency cyclones, the inlet gas velocity is higher. Cyclones are relatively inexpensive and easy to fabricate, install and operate. Moreover they need very little maintenance. They can handle any required gas volume and particulate loading. For handling large flows, they can be arranged in parallel identical units having a manifold extension to give uniform distribution of gas flow as well as particulate loading. The tangential entry may create turbulence and this can be avoided by using involute inlet at the expense of 5-10 per cent increase in cost and maintenance. The generation of eddies at the top of the inlet causes some inlet gas to be mixed into the chamber leaving clean gas which can be overcome by adding a vortex finder. For a given flow capacity, the efficiency depends on the body diameter, vortex finder dimension, cyclone length to diameter ratio, inlet velocity, etc. All these have a positive impact on the pressure drop which in turn affects the energy requirement.

Erosion is by far the most serious problem with cyclones and hence a proper choice of material of construction is essential. Back mixing losses by Bernovilli effect and particle bounce also contribute to loss in efficiency. The cut diameter is around 10m. For a medium efficiency cyclone the inlet velocity is of the order of 15-20m/sec and a pressure drop of 100-150mm water. For high efficiency cyclones it is 200-250mm water whereas it is 50-100mm water for low efficiency cyclones. Cyclones can be both wet and dry, the former being suitable for handling hygroscopic particles.

Filters and bag dust collectors

The particulates are retained on a porous structure through which the fluid flows. These are called positive collectors and have very high efficiency of the order of 97 per cent to 99 per cent depending on the ini-

tial particle size. The type of fabric basically woven or felt used, depends on the characteristics of the particulates. For example, slick finish woven fabric is preferred for collecting abrasive particles, and for capturing tarry particulates felted fabrics are better suited. In fabric filters diffusion mechanism becomes ineffective for particles larger than 1m. Removal of particles below 0.5m becomes uneconomical because of the high velocities required. These are simple to operate and required minimum control. Inlet dust loading range from 100m/m while the effluent could be as low as 0.02 gr/SCF. The first cost is lower and the power consumption is moderate with near 100 per cent collection of particles above 1m. However, the fabric filters require high maintenance basically replacement of the filter cloth.

In bag filter, the fabric is made into bags of tubular shape and the entire structure housing the bags is called a bag house. The dust laden gases are passed through the fabric which retains the dust, allowing the gases to pass on. Initially the efficiency of separation is low until enough particles have been removed to build up a dust precoat on the fabric pores. Once this layer forms, the separation efficiency reaches 99 per cent and above. The primary design criteria is the gas flowrate, ratio of filtering time to cleaning time. The variables being the filter medium itself, fabric life, reconditioning capability and housing configuration. The basic design objective is to provide sufficient area filter media to allow filtration without excessive pressure drop. The filter area required depends on the concentration of dust in the carrier gas and fabric type. From the engineering point of view, due consideration should be given for cleaning of the bags and maintenance and final dust removal system. We can have either intermittent duty collector or continuous duty fabric collector. In the former the dirty air enters the open bottom of the tube and the dust is collected on the inside of the tube. Periodically, the air flow must be stopped to effect reconditioning. In the latter dirty air moves from outside to inside the bags and the cleaning is accomplished in response to pressure drop without shutting off the gas. For cleaning, compressed air is blown from a slot in the direction opposite to that of the flow of the inlet gas. This

snaps the bag outward and discharges the dust into the chopper. The bags are cleaned in sequence regulated by a timer.

Electrostatic precipitators

These consist of a chamber, a gas-tight shell with hopper to receive the collected dust, inlet and outlet gas plenums and inlet gas distributor in which are housed discharge electrodes and collecting electrodes. Discharged electrodes are smooth wires with a small radius of curvature energised by high intensity electric field while the collecting electrodes are sheets of reinforced light gauge metal tubes. The high voltage discharge system is well insulated and isolated from grounded components. The dirty gases pass through the chamber and as the entire collecting energy is applied directly to the particles, under the influence of strong electrostatic field, the matter is ionised and collected. Ions having the same polarity as the discharge electrodes, attach themselves to neutral particles in the gas stream, and are then attracted to the collecting plate carrying opposite charges. Upon contact with the collecting sheets dust particles lose their charge and build up. The dust build-up is removed by rapping the electrodes in dry precipitators and by flushing them with water in wet precipitators. Thus the process of dust removal in an ESP consists of, ionization of the gas, charging of the particles, transportation to the collecting surface, charge neutralization of the dust particles and removal.

ESP's are known for their very high efficiency performance. The energy intensity is of the order of 45-70 and the corona power range from 50 w/1000 ACFM to 500 w/1000 ACFM depending on the resistivity of the dust. A linear gas velocity of 1m-2.5 mt/sec is maintained. The number of the electric field in the direction of gas flow is 2M-4M depending on dust characteristics and required collection efficiency. It can be used at very high temperature and the pressure drop is usually less than 60 mm water. The factors that decide the design of ESP are volume rate of and hygroscopicity. Some of the problems the gas, temperature, dew point, composition of the dust, size distribution, concentration, bulk density, resistivity and hygroscopicity. Some of the problem areas are breakage of discharge wires insulator failure and excessive dust deposits due to im-

proper rapping and efficiency loss due to that. The ESP choice should be made with utmost care because of the sophistication and high initial cost involved.

Wet scrubbers

Wet collectors are high efficiency collecting systems providing a high collision rate between the dust particles and liquid spray. The dust particles get entrapped in the water microdroplets and removed. These micro droplets provide a large surface area for collection of any soluble contaminants. The principal rule is the smaller the particles being removed the greater the energy which must be expended. The operational range for particle removal includes materials less than 0.2 dia. to the largest particle which can be suspended in the gas phase with a collection efficiency as high as 99 per cent. The efficiency of the equipment depends on the number of possible contacts between the particulate and liquid phases. Differential types are packed towers, plate towers, while the integral types are spray chambers, cyclonic scrubbers and **venturi** scrubbers. Spray chambers are effective for particles of 25m or above size. The gas velocities range from 1-4 m/sec and water consumption 1-3 lit/cu. meter of gas. Particularly useful for handling hot gases because the system is constantly flooded. For particles having 10-20m size wet cyclones increase the collection efficiency as a result of added centrifugal action. At these particle sizes low energy devices would suffice, whereas for 1-5m size medium energy equipment like self-induced scrubbers and for 1m or less high energy **venturi** scrubbers are used. These wet scrubbers are followed by mist or entrainment separators. Scrubbers can generally operate satisfactorily under significant turn down ratio over a wide temperature range and are highly dependable units with no moving parts in direct contact with dust. The real problem is when dual gas and particulate removal is required because for particulate collection a high velocity gas stream is necessary while for absorption a lower velocity must be maintained.

On the design side, the packed bed scrubbers are ideally suited for particles 1.5-2m in diameter and the design water-use rate is 0.2 to 0.5 lit/m and gas rate of 1000 m /min or less. The pressure drop is

around 50-250 mm water. In cyclonic scrubbers the cut diameter is 2-3 at a superficial gas velocity of 60-150 m/sec. The pressure drop through the system is 30-75 mm water. Water use rate is 0.25-1.2 lit per m and the normal capacity is of the order of 1500 m /min per unit.

Venturi scrubber

By far, the most versatile and widely used particulate collection system because of its exceptional efficiency, very close to electrostatic precipitator and fabric filters at much lower initial cost. Further **venturi** scrubbers have one distinct characteristics not found in the earlier systems, which is its ability to handle high temperature and moisture laden gases.

The collection efficiency increases with pressure drop and the cut diameter is 0.05-0.1m depending on the pressure drop. Gas velocities at the throat is the basic design factor which could be in the range of 30 to 150 m/sec. Some **venturi** collections have adjustable throat allowing a range of pressure drop to be developed or to maintain a constant pressure drop where the flow volume varies. The **venturi** causes intimate contact between the particulates and the scrubbing liquid. The scrubbing liquid is fed to the venturi at the throat where the liquid film is continuously accelerated at the expense of energy from the gas stream until the film breaks into fine droplets. The divergent

section then recovers much of the pre-sure drop occurred at the throat. The resulting mixture agglomerates are removed in the cyclonic portion of the scrubber. **Venturi** scrubber is a compact unit and can be designed for very high gas flow rates of the order of 40000 m /min. The advantages are easy in operation and no choking problem.

Gases and vapours removal system

The control of gases and vapours is achieved through contacting devices based on the solubility mechanism and on absorption and adsorption principles. The absorption is a diffusion controlled gas liquid mass transfer process and is entranced by high diffusion rates, high solubilities, large interfacial areas and turbulence. The equipment is mostly packed towers using different types of packing for efficient gas-liquid contact. The cross sectional area is fixed by the dirty gas flowrate. The pressure drop depends on the height of mass transfer section and configuration of the packing. Adsorption is a gas-solid process where the contaminants are concentrated on the surface and in the pores of the adsorbing materials. The performance is dependent on the temperature, pressure and chemical composition of the adsorbates and adsorbent. In specialised cases like selective adsorption of pollutants molecular sieves are used which is by far the most attractive process because of the cleanliness of the stack. Thermal oxidation and

Table I : Design and performance parameters

Equipment	Contaminants	Particle Size Range (um)	Optimum Concentration Range (Gm/m ³)	Utility Reqd.	Pressure Drop MM water	Efficiency %
Settling Chambers	Dust	> 50	> 11.5	—	—	<50
Baffled Chambers	Dust	> 30	> 11.5	—	—	<50
Cyclone	Dust	> 10	> 2.3	—	75-100	<80
Multiple Cyclone	Dust	> 5	> 2.3	—	—	<90
Cyclonic Scrubber	Gases, fumes dust	> 5	> 2.3	0.25-1.5 lit M ³	100-150	<90
Venturi Scrubber	Gases, fumes dust	<2	> 0.23	0.5-0.75 lit M ³	250-750	<99
Fabric Filters (Bag House)	Dust	> 5	> 0.23	—	100-150	> 99
Electrostatic Precipitators	Dust	> 0.3	> 0.23	0.007-0.02 KW M ³ /min.	10	> 99
Spray Absorber	Gases, fumes, dust	Molecular	> 0.023	0.25-1.5 lit M ³	—	< 95
Packed bed Absorber	-do-	-do-	> 0.023	0.5-1.0 lit M ³	—	> 86
Shallow Bed Absorber (20mm-100mm)	-do-	-do-	> 0.023	—	—	95
Deep Bed Adsorber (300-900mm)	-do-	-do-	> 0.023	—	—	> 95
						99

Table 2 : Industries and types of collectors used therein

Industry	Form of pollutant	Equipment recommended/used
Phosphatic Fertilizers	Fumes (ammonia) Dusts, SiF ₄ Fluorine Compounds	Cyclone Venturi Scrubber Packed towers Bag house collectors.
Nitrogenous Fertilizer	Ammonia Urea Dust	Scrubber or stripping tower Cyclone Venturi Scrubber Bag house filters
Iron and Steel	Iron Ore dust Iron Oxide dust	Cyclone Venturi Scrubber ESP Bag house, Venturi Scrubber
Non-ferrous Industry	Smoke fumes	Cyclones, Venturi Scrubber
Aluminium Copper, Lead, Zinc	Fluorides oxides	Cyclone/Venturi Scrubber Fabric Collector
Pulp and Paper Industry	Lime dust Soda fume	Venturi Scrubber
Thermal Power Plants	Fly ash SO ₂	E.S.P., Cyclone Separator Venturi Scrubber.
Mineral Product Industry Carbon black, cement kiln	Glass dust	Venturi Scrubber/ ESP and Bag house filter
Chemical Indus.	Noxious and corrosive fumes gases Acid mist Pulverised coal dust	Packed Towers Demister/ Entrainment Separator/Mist Eliminator Packed Towers. Fabric Collector.
Bagging Plants	Dust	Fabric Collector Venturi Scrubber.

combustion of pollutants are other methods of controlling gas vapor emissions. However, these are energy intensive.

Some of the typical design and performance parameters of the equipment are given in Table I. The more commonly used control equipment in various industries are given in Table II. A brief comparison on the cost of these equipment is dealt in Table III. As can be seen venturi and cyclonic scrubbers find their application in wide number of industries.

Table 3 : Air pollution control system cost comparison

System	Capital cost	Operating cost
Cyclone Separator	Low	Low
Bag House	Medium	Medium
Electrostatic precipitator	High	Low
Venturi Scrubber	Low	High

From the above it is clear that each and every individual system has its own benefits and drawbacks and the selection of a particular system would have to be on a case to case basis. However, the most important is the commitment by the industries to keep our environment clean at all costs.

Industrial air pollution control strategies

By SOLI ARCEIVALA

WE are at the threshold of a new phase in air quality protection work, backed by suitable legislation. Considerable sums of money are likely to be expended on air pollution control activities. Both public agencies and industries, therefore, are interested in seeing that the money is well spent and air quality protected at the least cost to the nation.

In fact, much work has been done in India already. India has the necessary infrastructure in terms of trained manpower, monitoring capabilities, and control equipment manu-

The opinions expressed in this paper are those of the writer only and in no way represent the views or policies of the World Health Organisation. Mr Arceivala, who is Regional Adviser, Environmental Health, WHO regional office for S.E. Asia, submitted this paper at a seminar organised by All India Manufacturers' Organisation.

facturing capacity. Even with the old legislation as it existed many large industries had been persuaded to under taken pollution control measures; the Industries and Health Ministries and the departments in the states had played their roles with varying degrees of success. One may also recall the pioneering activities of institutions like BARC, NEERI, and NIOH, and mention must be made of BMC which today has one of the finest urban monitoring systems in this region.

The World Health Organisation has been pleased to assist in modest, though hopefully catalytic ways. It supported the VJTI, Bombay, 20 years ago in holding the very first seminar on air pollution ever to be held in India. It continued support to NEERI in starting experimental urban monitoring programmes. India is a part of the WHO/UNEP Global Environmental Monitoring Programme. Cur-

rently, WHO assistance is focussed on the Central Pollution Control Board and through it to the state boards. An interesting research study by BMC is being supported on personal exposure monitoring and Bombay is one of the five cities in the world to participate in this study. Indian experts have even helped other countries in some aspects of pollution control work.

Control strategies

In a comprehensive consideration of air pollution control, the indoor working environment as well as the general ambient one must be seen together as one affects the other. In that framework, one must determine the optimum strategies for control. Air pollution control does not mean just the installation of control equipment. No doubt, equipment is important, but a rational approach to control involves more than that,

Pollution control costs money and in the context of the present situation even countries like USA are considering relaxing some of their control policies. Every effort must, therefore, be made jointly by control agencies, industries and the public to evolve least cost solutions for the present problems and sound policies for long term air quality protection. Then what should be our priorities?

Perhaps there is nothing new in this, but if I were to confine myself at this stage to industrial air pollution only, I would say that current thinking about optimum control strategies and priorities is as follows:

- encourage industries to avoid pollutant formation at the very source by use of cleaner fuels, and adoption of less polluting materials and technology in manufacture;
- localise the spread of pollutants in the indoor working environment as far as possible;
- allow discharge of pollutants to the ambient environment to the extent possible to benefit from disposal by dilution. (This involves proper site selection; availability of meteorological and other data, etc.);
- require installation of control equipment only if possible; encourage installation through tax benefits, and
- prompt development of supporting infrastructures.

Industries and their emissions

I would like to bring to your notice a new document just prepared by WHO giving a list of nearly 140 industrial processes of concern in pollution control and the likely emissions from many of them. This document is entitled "Rapid Assessment of Air, Water and Land Pollution Sources" (1981).

This publication is specially adapted for use in developing countries. Hitherto, emission factors have been available mainly from US-EPA, OECD, NATO and such other publications.

Earlier in 1979 two WHO consultants visited Bombay and prepared a rapid inventory of air and water pollution sources and their estimated discharges. Their experience was subsequently incorporated in preparing the document at reference.

Use of cleaner fuels

Combustion is perhaps the single largest source of air pollution in

urban, suburban and even rural areas. Home and process heating, use of process steam, power generation, and transport all involve combustion and the cleaner the fuel the lesser the polluting emissions. Traditionally, the ash content of coal and the sulphur content of coal and oil have been viewed with concern because smoke (particulates) and sulphur dioxide emissions are in direct proportion to the ash and sulphur content of the fuels respectively. What is the range of these emissions?

Table 1 gives the approximate emissions that may be expected from various common fuels, all expressed as kg/ton to enable comparison. Firewood is included because in India it constitutes the largest source of energy for non-commercial purposes. Traditionally, the ash content of coal poses.

The cleanest fuels for stationary systems are, of course, LPG and natural gas. In several countries, government policy has been to supply cleaner fuels in urban/industrial areas instead of throwing the burden of installing pollution control equipment on individual users. The problem in western countries is somewhat different from ours: in their winters every home needs heating and emissions from home-heating often dominate. Hence, governments are more easily persuaded to provide cleaner fuels. I may quote two cases from my own experience where large World Bank loans were obtained by governments to provide cleaner fuels: one for natural gas supply to Sarajevo, Yugoslavia, and the other in Ankara, Turkey, for manufacture of smokeless coal briquettes by low temperature carbonisation of poor quality lignites available locally.

Two power stations in Bombay, operating on coal have reportedly switched over to natural gas and ex-

pected reductions in emissions have occurred.

Low sulphur crudes are in demand and fetch a higher price in world markets and good quality coking coals are not in abundance. Thus, countries like Japan have often found it cost effective to stock two qualities of fuels in their major industries, one for normal use and the other higher quality, more expensive fuel for use only when ambient meteorological conditions are unfavourable and ambient concentrations reach high values. This, of course, requires sophisticated air monitoring and on-line data transmission to a central control station to inform the major industrial polluters when fuel switch-over is needed.

What are the energy production predictions for India upto the year 2000? From the reports of several experts, it is evident that while use of oil will continue to increase (in spite of its price) the greatest increases are likely to be in hydro-electric power wherever feasible, in thermal power generation based on coal, and in bio-gas production for rural areas. Contribution of nuclear power is only about 3 per cent at present and would continue to grow only slowly. Thus, air pollution from use of coal and oil will remain significant, and strategies for supplying better quality fuels to pollution sensitive areas will need the fullest consideration.

So far we are talking of the traditional pollutants; what about others like heavy metals? Recent reports from western countries indicate that by far the largest contribution of heavy metal pollution in lakes (e.g. from cadmium, mercury, lead, etc) comes from air-borne pollutants—mainly from coal combustion—settling on lakes and their catchment areas; comparatively negligible contribution is received from direct

Table 1: Approximate emissions from various combustibles

Fuel					Emissions			Remarks
					Particulates (kg/ton)	SO ₂ (kg/ton)	NO _x (kg/ton)	
Firewood	..	..	..	31	20	4	Highest in particulates
Coals	..	..	..	5-25	6-150	7-9	
Oil	..	..	..	1-3	6-76	3-13	
Lpg	..	..	..	0.38	0.0002-0.008	2-3	Cleanest fuels for stationary systems
Natural Gas		..	..	0.30	0.2	2-12	
Mobile systems :								
Petrol	..	..	..	2	0.54	7.5-10	
Diesel	..	..	..	2.4	5-6	11	

industrial effluent discharges. It could be interesting to know how much of such air-borne pollutants from Bombay reach its drinking water supply lakes and coastal waters with accumulation in the food chain.

Adoption of least polluting technology

A similar strategy must be followed with regard to process emissions in order to reduce the very formation of pollutants by adopting the least polluting technology wherever possible. It is here that the various industry associations can best help themselves.

The USA, Japan and other OECD countries of Europe are currently actively engaged in reviewing their technology and are even undertaking process changes wherever feasible to reduce pollutant formation or to restrict its emission to the form in which it is most easily treatable. Substitution of dangerous (e.g. carcinogenic and bio-accumulating) chemicals and other materials used in manufacture has been particularly useful in protecting workers' health in the factory environment and similar efforts to reduce ambient discharge of pollutants are in progress to protect general public health and ecosystem damage. Some day we may attain the "zero option" when production and usage will be so well integrated as to give zero discharge to the environment.

Choice of technology concerns minimising not only air pollution but also waste water and solid wastes emission since pollution from one phase can be transferred to another phase. As an example, air-stripping of ammonia from the waste water of a nitrogenous fertiliser plant may end up reducing water-pollution but increasing air pollution. Sometimes in an industry the air emissions containing carbon dioxide can be usefully diverted to neutralise alkaline waste waters instead of discharging to the atmosphere, thus "killing two birds at one stroke". Thus, a comprehensive approach to environmental with all forms of waste production and treatment, is essential.

Localising spread of pollutants

Since a certain amount of pollutant formation cannot be avoided, industries are called upon to follow the obvious strategy of isolating a process/operation or a specific part of it to contain the pollutants within a given area and ventilate them off separately to the outside environment with or without treatment.

Many examples abound from industries which have for example isolated their electroplating rooms, foundries, paintshops, etc, provided enclosed conveyor belts for handling dusty materials, and such other devices, the ultimate example perhaps being nuclear reactor housing. These need not be described any further. It is the application of such methods in our industries that has not been evenly attained as yet. In some instances even good house-keeping is lacking.

Disposal by dilution

From the viewpoint of industry disposal of air pollutants through tall enough stacks to obtain dilution in the atmosphere, is generally the most attractive solution. But as a national strategy it can only take second place to the more fundamental approach of using cleaner fuels and least polluting technologies since dilution in air is not an ultimate solution. In extreme cases even trans-boundary problems can arise between nations. (The untreated emissions from tall stacks in UK have been allegedly held responsible for the unusually acidic pH of rainfall in Sweden).

But disposal by dilution is indeed a useful concept for legitimate exploitation in the same manner as liquid waste disposal is facilitated by location of an industry near a large body of water in which adequate dilution may be attained. Appropriate site selection (location)

is the key to the use of this strategy. Now that an air pollution control Act exists, site selection for new industries will become all the more meaningful.

Selection of new sites for locating large polluting-type industries or industrial complexes must take into account various meteorological factors—wind speeds and directions, height and strength of inversions, and other factors—to ensure that protection of downwind populations, agricultural and other activities will not demand use of unduly costly control equipment or the provision of very tall stacks. Environmental impact assessment is a useful tool in this regard and must be used in advance of site selection rather than for "post-mortem" purposes.

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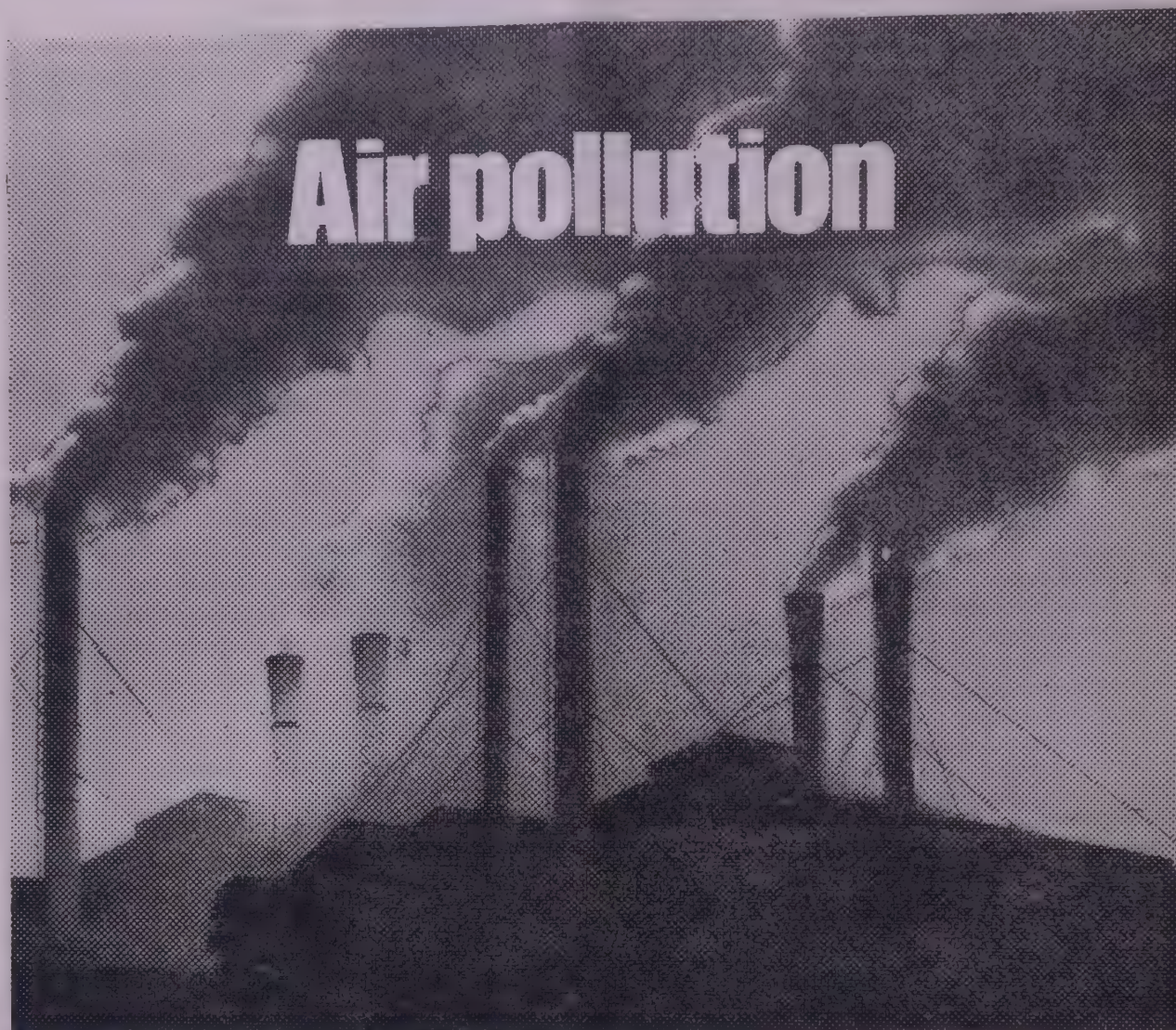
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LETTERS

Drinking water supply decade 1981-90

SIR — The following plain truths may be new to many. But fifty thousand people die every day from lack of clean water and sanitation. Many millions cannot work because of water linked diseases. Clean water and sanitation are essential to improve health and productivity. Water decade offers a great opportunity for economic development.

Hence "clean water and adequate sanitation for all by 1990" is the goal of International Drinking Water Supply and Sanitation Decade 1981-90, which was officially launched by the United Nations General Assembly's special session on 14 November 1980 at New York. To achieve the Decade's major efforts will have to be made in community participation. During this summer months many million people are put to daily hardships on account of lack of adequate quantity and quality of drinking water. If hygiene and sanitation fall below a certain level, improvements in the quality and quantity even the quantity of drinking water are unlikely to improve health status, but combined water supply and sanitation, together with health education are formidable weapons in the fight to achieve health for all.

The potential sources of funds are Governments, other national sources, communities served, international and regional banks, non-Governmental organizations and bilateral organizations. Water and sanitation have to be accorded higher priority in national planning. Low cost options which are self reliant have to be sought for. Generation of local resources through community participation has to be encouraged. Adequate attention has to be paid for obtaining more external aid to complement internal resources.

Finances are primarily required for planning and evaluation, manpower training, technology development projects, public information, health education and community participation. Engineering and feasibility studies, supplies and construction, operation and maintenance are the other major items. Together with this institutional development is very important for the speedy and efficient execution of projects and programmes that are awaiting quick implementation.

Over half the population of the developing countries do not have safe drinking water and three quarters have no sanitation. In order to meet Decade targets a considerable acceleration in the provision of drinking water and sanitation services is needed. To make the Decade a success, major efforts will have to be made in Institutional Development, rural emphasis and community participation, manpower training, Public information and health education, use of appropriate technology, Exchange of information and co-operation within and among countries.

N.N. Bhattathiripad
MCHUR

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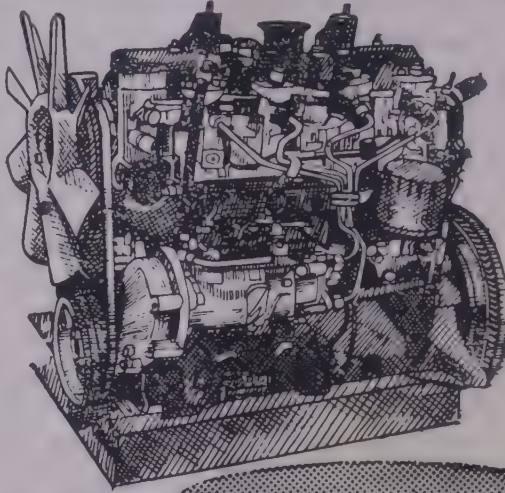
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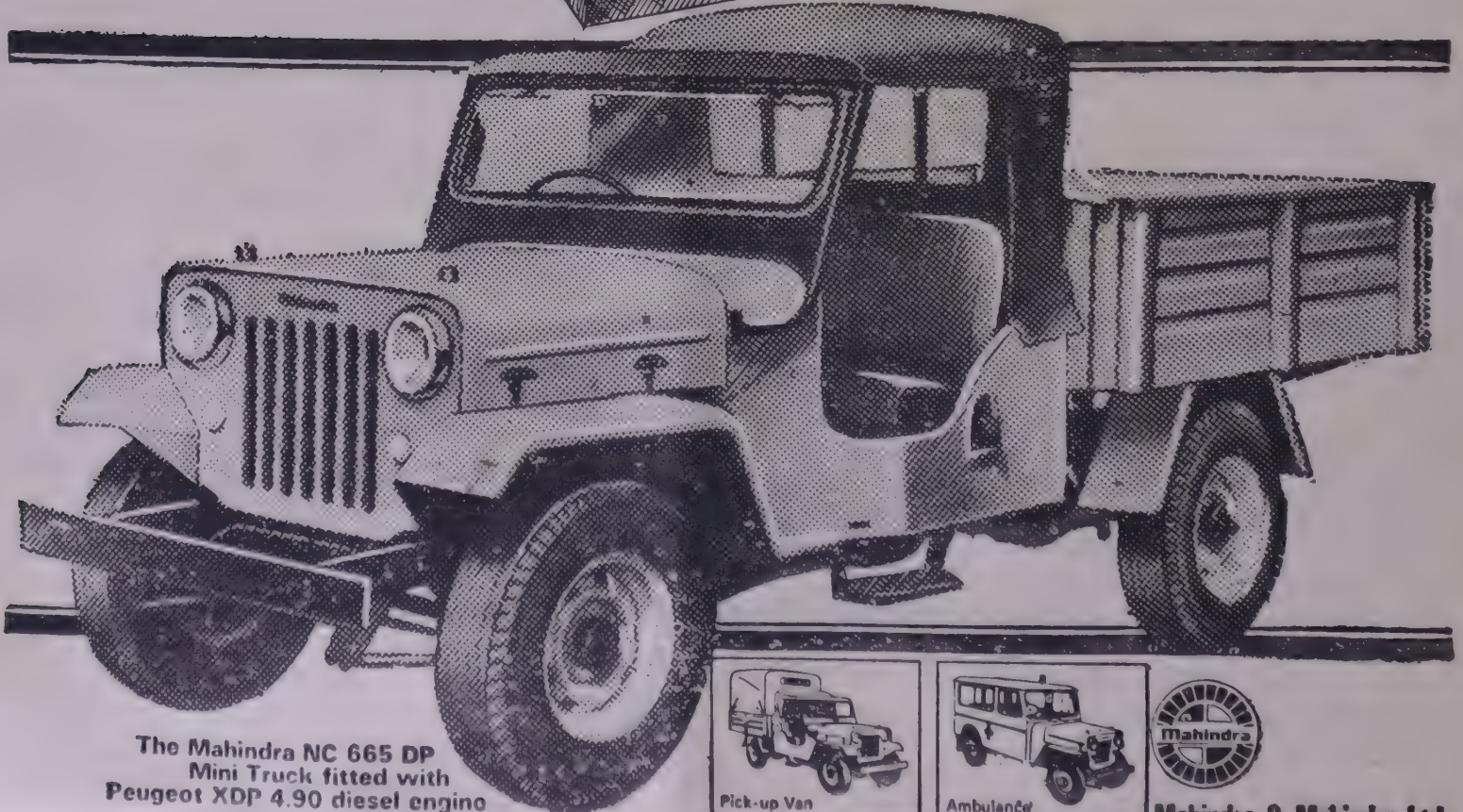
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COMMERCE

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THE WEEK

Twentyone state governments have announced the issue of their new loans bearing interest at 7.50 per cent per annum and aggregating Rs 504.25 crores. These loans will be issued at Rs 100.00 per cent and are repayable at par on July 14, 1997. The details with amount of loans in crores of rupees are as follows: Andhra Pradesh, 56.75; Assam, 11.25; Bihar, 25.50; Gujarat, 30.75; Haryana, 14.00; Himachal Pradesh, 2.25; Jammu & Kashmir, 3.25; Karnataka, 26.00; Kerala, 27.00; Madhya Pradesh, 17.25; Maharashtra, 33.75; Manipur, 3.00; Meghalaya, 4.25; Nagaland, 4.00; Orissa, 27.00; Punjab, 12.00; Rajasthan, 41.00; Tamil Nadu, 32.25; Tripura, 4.25; Uttar Pradesh, 102.00; and West Bengal, 26.75.

India will draw 1,500 million SDR as the second tranche of the IMF loan in the current financial year.

India and other coffee producing nations rejected a basic quota proposal on coffee exports placed at the Council of the International Coffee Organisation in London.

The Planning Commission has approved an additional Sixth Plan allocation of Rs 190 crores to the railways.

The Union Government has identified two South Korean and a West German company from whom manufacturers of 20 inch colour television sets in the country can import components.

India has approached the European Investment Bank for concessional long-term loans.

The Union Government has decided to convert overdrafts of state governments into term loans amounting to Rs 1,743 crores as on March 31, 1982.

Industrial Finance Corporation of India has introduced two new schemes for youth self-employment and the revival of sick units in the small-scale sector.

The Union Government has decided to set up a jute fund and to levy a new jute cess on the industry.

The Soviet Union will prepare a feasibility report for the alumina project proposed to be set up in Andhra Pradesh.

Wholesale price Index

The latest available Wholesale Price Index for all commodities at 285.7 for the week ended June 19, 1982 showed a rise of 0.4 per cent over the preceding week and 1.8 per cent over the year.

Money comfortable

Conditions in the Bombay short-term money market were comfortable as of Monday (July 5, 1982). In the inter-bank call money section both notified and commercial funds were renewed at five per cent. Fresh money was transacted at five per cent. The market closed at five per cent.

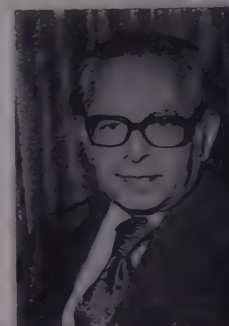
Mr J.R.D. Tata has retired as the chairman of Tata Chemicals Ltd and Tata Oil Mills Co. Ltd. He had held these positions for 44 years. Mr Tata, however, continues to be on the board of these companies, and in recognition of his long contribution, the boards of these companies have unanimously designated him as chairman emeritus.



Mr Jayantilal J. Choksey has taken over as the chief general manager of Gujarat State Financial Corporation.



Mr Darbari Seth has been appointed chairman of Tata Chemicals Ltd and Tata Oil Mills Co Ltd. Till recently he was the deputy chairman and managing director of Tata Chemicals and vice-chairman of Tata Oil Mills.



PEOPLE

Mr B. Ratnakar, executive director of Canara Bank, has been appointed chairman and managing director of the bank with effect from July 1 for a three-year term. Mr Ratnakar, who is a B.Com., C.A.I.I.B., and A.I.B. (London), joined Canara bank as an officer in 1956.



Mr B. Gupta has taken over as manager and chief executive officer of the State Bank of India in New York. Prior to this, he was the general manager (operations) in the international division of the bank's central office in Bombay.



Mr R.J. Shahaney, chairman and managing director of Ashok Leyland, has been elected president of the association of Indian Automobile Manufacturers for 1982-83. Mr S.L. Bhatnagar, president of Hindustan Motors, was elected vice-president.

Mr R.D. Gupta, Mr Nirbhay Jain and Mr Daya Dhaon have been elected respectively, president, vice-president and treasurer of the All India Management Association.

Mr S.K. Gupta has been appointed deputy general manager (sales) of the western region of Indian Oil Corporation Ltd, based in Bombay.

RESTORING VIABILITY TO JUTE

THE decision of the Indian Jute Mills Association to suspend operations in the evening hours between 6.00 p.m. and 10.00 everyday was perhaps unavoidable given the depressed state of the market situation especially overseas. The Union Finance Minister, Mr Pranab Mukherjee, when told about it, made no explicit comment as to how he felt about the jute industry's decision but indirectly confirmed that the situation was really bad and the experience of the government-run mills has been no better. In fact, these mills have been incurring a loss of Rs 1.2 crores a month and over a period of one year they had incurred Rs 15 crores. The privately-owned mills can have no external financial support, budgetary or otherwise, and when they run into heavy losses the only way out is either to curtail operations or stop production altogether. The latter would be possible, at least politically, considering that there is a long pro-worker government in West Bengal, which did not entertain the mills' earlier proposal to close their operations for one week every month. The Chief Minister of West Bengal is annoyed that the mills have decided to suspend operations every day for four hours without so much as referring the matter to the State Government at least for the sake of courtesy, but then the mills perhaps felt that the State Government could not permit them to suspend operations even during hours when the state electricity supply system does not provide them with energy and they have to manage with much costlier electricity from diesel generators. Another sore point with the State Government is that the workers' wages for these four hours will be reduced by a half and there is nothing it can do to protect the workers' income.

It is, of course, true that such suspension of operations is not a happy solution even to the short term problem of an imbalance between supply and demand. The Indian jute industry is already selling 63 per cent of its production in the internal market but the balance 37 per cent is critical for its survival. An industry that has still to depend for such a large proportion of its output as nearly 40 per cent on a highly unpredictable and fluctuating overseas demand must necessarily face crisis periodically. The best solution, of course, would have been some institutional arrangement like a market equalisation fund to come to the aid of the industry when export prices are depressed to uneconomic levels. Fortunately, this aspect of the problem is being looked into and, according to press reports, the Union Cabinet has already decided to move a bill in Parliament in the near future for setting up a jute fund through a new cess on the value of jute goods cleared for sale. The existing Jute Manufacturers Development Council will be suitably reconstituted to administer the jute fund. It is not

clear from press reports as to how the jute fund will be used but export assistance is the most likely objective and so is aid to R&D efforts. One only hopes that considering the chronic nature of the industry's crisis the bill will be pushed through Parliament expeditiously and the fund will be set up in the near future. The industry has been complaining that the subsidies given on exports have been inadequate and more so due to increasing competition from synthetics and a cut-throat scramble for the market by the Bangladesh jute industry.

The Government has reportedly decided to set up a high powered committee with the secretary (textiles) as chairman. The terms of reference will be to suggest ways for the revitalisation of the jute industry from a long-term perspective and for bringing about necessary coordination between various official departments working for the jute industry. If this report has not been greeted with any degree of optimism, it is because more than the committee, the action is required. There has never been a dearth of enquiring committees — high powered or otherwise — to look into the various problems of the jute industry. In fact only two years ago a high-powered task force led by the then commerce secretary, Mr P. K. Kaul, submitted detailed recommendations for the revitalisation of the ailing industry. One does not know what has happened to the findings of the task force. What is really lacking is a will to act and an approach to the problems of this major industry, which has been a substantial exchange earner, with the right degree of seriousness and sincerity.

Equally obviously nationalisation, which has often been talked about as a remedy, light-heartedly for political as well as other reasons, is no solution to the crisis. The Union Finance Minister himself has been on record stating that the mere transfer of ownership or management to government hands does not make a unit automatically viable. Something is to be done about the circumstances which have been eroding the viability of the jute industry progressively. Modernisation is also a much touted remedy but that requires funds. Jute industry is not the only industry which finds it impossible to embark upon modernisation on the basis of its own funds alone. The industry has thus to be provided with funds. If the mills take loans they are necessarily obliged to organise the cash flow with which to repay the loans with interest and set aside a part of it for further development. Modernisation would prove to be of no avail if the industry is not able to look forward to a reasonable period of steady production and market for its products for which a long-term understanding with labour is indispensable.

THE WOES OF BOMBAY COMMUTERS

THE virtual collapse of the Central Railway's suburban services in Bombay on June 21 and 22, when the city witnessed an unprecedented protest action on the part of the people against the irregular suburban train services, presented nothing more than a dramatic climax of a tension which has been inflicting the Bombay dwellers for many years and which has not been resolved by the acts of violence and other hectic events of the recent past. Indeed the tension must be considered to have increased even more now that the number of suburban trains running by the Central Railway was less than before the disturbances. Part of the explanation for this is that the acts of violence and destruction had put out of commission several rakes and they needed time to be repaired and put back on the tracks. But the root of the problem lies in the absolute shortage of rakes and engines.

It is not difficult to see that with a little more of attention to the proper maintenance of the carriages and tracks much of the agony of the travelling public can be avoided. Here there is considerable scope for improvement in the conduct of the railway personnel in general — and of the higher officers in particular. In a highly centralised administrative set-up that the railways represent it is difficult for persons at lower levels to rectify even ordinary defects because they may lack authority to do so. They have invariably to look up to others. It is not exceptional to find that fans and lights in the train compartments are out of order. This symbolizes the breakdown of the maintenance system. Obviously the railways must have detailed some persons to check up the functioning of lights and fans in train compartments. Equally obvious is the fact

that frequently such a check is not done so that fans and lights remain out of order in trains which are put on the track to carry commuters.

At the same time it must be conceded that the railways have a limited responsibility and are in no position to solve the traffic problem created by thoughtless centralisation of economic and business activities which has been made worse in Bombay by the new spurt given to the accentuation of concentration in the Nariman Point — Cuffe Parade business complex. There is no fund to set up more railway lines and even if funds are made available there is just not enough land readily available in Bombay to facilitate the expansion of the suburban tracks in Bombay of Central Railway or the Western Railway. Indeed the commuters in Bombay who are obliged to go to Nariman Point in the morning to attend to their office have to cope with new woes once they get off the local trains. Thus it is not the railways alone that are responsible for the woes of the people. For very much the same reason there are not enough of buses at Churchgate in the morning to carry the office-goers to their destination so that taxi drivers, with full police backing, are able to fleece commuters by charging rupees six for a distance which would normally cost less than rupees three by a taxi. One has only to look at the mile-long queue for buses near Churchgate railway station despite the virtual avalanche of human bodies trying to cover the distance on foot — suffering much unnecessary mental and physical strain. Indeed the Nariman Point woes are truly insoluble.

INDUSTRIALISING ORISSA

It is perhaps a measure of success of the drive at the Central and state levels to industrialise Orissa rapidly that one hears a lot these days about India's poorest state having a great economic future. Massive Central investment in the form of the largest alumina and aluminium complex in the country, a phosphate fertiliser plant at Paradip, and a gigantic steel complex, one hopes, at Daitari, has focussed investor attention on Orissa.

The Central moves have been considerably reinforced by the State's own drive to attract private capital and entrepreneurial interest from outside the State as locally these have not sufficiently developed yet to match the needs of the situation. It may be easy to dismiss the programme to have rupees one thousand crores invested in one thousand days as unrealistic, but the relevance of such a programme to the needs of the state is beyond question. One thousand crore rupees may not get invested in one thousand days but the investment, such as has come in the form of a number of new industries, would not have come but for the state government's determined pursuit of the objective to develop the state industrially as quickly as possible. The state government has been giving liberal incentives to investors in new industries,

has been developing infrastructure like industrial estates and roads, and has an ambitious power development programme to minimise its heavy dependence on hydro-electricity which creates serious power problems in years of drought.

The Industrial Development Corporation of Orissa Ltd (IDCOL) is the leading agency for industrialising the State as per the Industry Ministry's development programme. A survey of its activities spread over two decades tells the story of the corporation's many sided progress which has not only brought in new industries but new technologies as well. It now plans to diversify into new and more modern industries involving substantial investments and with considerable employment potential. Because of the corporation's development plans, Orissa will have for the first time a textile machinery unit and some other engineering units that will give it something of an engineering base worth the name, and a big cement unit in the south in addition to substantial additions to capacity to the one in the north. It is quite clear that Orissa should have more medium and small industries to create more direct employment opportunities for the people and induce greater development of local resources. To that end the State Government's efforts at attracting these types of industries are in the right direction.

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EDITOR'S NOTEBOOK

Vadilal Dagli

Reagan's trade war

PRESIDENT Reagan's decision to ban the sale of equipment by American companies for building up the 3,700 mile gas pipeline from Siberia to West Germany has not only stunned America's European allies but has also created financial problems for American companies dealing in this equipment. Reagan's decision is considered hypocritical because America continues to sell grains to the Soviet Union as Reagan is afraid of losing farm votes. He, however, does not want a gas pipeline for Europeans because he thinks that the pipeline will provide Moscow with hard currency, which would increase the Soviet Union's military might. Europeans are aghast simply because they want to decrease their dependence on Arab oil. They also believe that, if a good business relationship is established, there are less chances for a hot war with the Soviet Union.

A leading American thinker, Robert V. Roosa has said that Reagan's decision on the pipeline "was absolutely stupid. It not only creates an inflammation in the alliance... So long as we are not going to try to completely quarantine the Soviet Union, we've got to have trade with them, and one of the few ways in which they can get hard currency, so they can pay for the goods they buy, is through the sale of gas. And it makes good sense for Europe to draw on those reserves, so long as they are available."

A well-known American company, Caterpillar Tractor Co., which was about to sell Moscow \$ 90 million worth of pipeline equipment has also protested. In a statement it said: "The Japanese have the business. The unemployment lines in Peoria (Ill.) have grown longer, and it appears that the Soviet natural gas pipeline in Western Europe will be built anyway". Another American corporation, the General Electric, warned that the continuation of the trade sanctions "would reward the French". So Reagan has started an economic war against the Soviet Union which might harm the United States more than the Soviet Union.

Our labour: Their gold

IN most of the oil-rich Gulf countries Indian and Pakistani labour runs the economy. This was revealed in a recent study on the labour force in the Arab gulf region which said that Indian and Pakistani labour constituted 60 per cent of the total manpower in Bahrain, 70 per cent in the United Arab Emirates and 80 per cent in Oman. Kuwait and Saudi Arabia also have sizable Asian labour in the country. Then is there no Arab labour? Arab labour is mainly concentrated in white-collar jobs in the government sector where knowledge of Arabic is a pre-condition for employment. In three Gulf countries, where Indian and Pakistani labour dominates, the economies are small but exceedingly wealthy. Bahrain has a population of only 425,000 with a *per capita* GNP of more than \$ 5,500. The population of UAE is about 9 lakhs, *per capita* income is more than \$ 30,000 — one of the richest countries in the world. Oman has a population of nearly 9 lakhs and its *per capita* income is nearly \$ 4,500. It is not surprising that these countries attract labour from India and Pakistan whose *per capita* income is less than \$ 300. Bangladesh's *per capita* income at around \$ 125 is one of the lowest in the world. So these three countries provide semi-skilled labour to the wealthy Arab countries. What about skilled labour? The study says that skilled labour is normally imported from South Korea (*per capita* income \$ 1,525), Thailand (*per capita* income \$ 700) and the Philippines (*per capita* income \$ 725). Recruitment of skilled labour from these East Asian countries usually takes place in the form of work groups for the gigantic construction projects that have been launched in the Gulf region during the recent past.

Soviet assault on pacifists

ALL political parties, writers' organisations and women's organisations in India should protest against the house arrest of three leading Soviet pacifists. While the Soviet Union and other communist countries talk of peace, celebrate anniversaries of Tolstoy's birth, recruit gullible writers and pacifists in other

countries to the ranks of its "peace movement", in their home land, the Soviet authorities torture genuine champions of world peace. The Soviet authorities, which exploit the "peace movement" in the West, are crushing mercilessly the peace movement which was recently launched in the Soviet Union. The Soviet peace movement has appealed for support to the Supreme Soviet of the USSR and the United Nations.

The appeal, which is addressed to the peace-loving people of the world, says: "We are surprised at the victimisation and arrest of supporters, including Sergei Batovrin, Sergei Rosenoer and Vladimir Fleishgakker, who are under house arrest. In view of the fact that the establishment of trust is the most necessary prerequisite for peace between peoples, we appeal to you to openly express in the press your attitude towards our appeal to the governments and peoples of the US and Soviet Union and to the fact of the victimisation of fighters for the establishment of trust between people."

Patels storm London

In a recent issue of *The Listener* Gerald Kaufman had the following piece in his Langham Diary which I am delighted to quote without any comment.

"Preparing for my United States trip, I was flipping through the pages of the London telephone directory to find the number of the Pan American Airways when I came upon a wonder and delight, a page headed 'Which Patel?' There is now such a prevalence of Patels that special instructions are required on how to trace which particular Patel one wants to telephone: 'The Patels are in order of initials... The Patels with the same initials are in order of address'. Fascinated, I counted the number of columns devoted to Patels; they added up to 23, not yet as many as Smith (81 columns) or Jones (43) but already outnumbering Robinson (a mere 16). Browns (40 columns), look out! The Patels (domestic hardware, grocer, newsagent, builders, foodstore, toys, wool, gifts, chemist, confectioner, tobacconist, general stores, sub post office) are coming."

LETTER FROM BONN

Are Schmidt's days numbered?

From RADHESYAM PUROHIT

ARE the days of Mr Helmut Schmidt as the Chancellor of the Federal Republic of Germany numbered? This question is now being asked here not only by his political opponents but also by the Social Democrats, his own party-men. The reason: the governing Social Democratic Party (SPD) is holding power in Bonn in coalition with the Free Democratic Party (FDP) of the Foreign Minister, Hans Dietrich Genscher, which is now toying with the idea of quitting the Bonn government headed by Mr Schmidt. The FDP is feeling more and more insecure in its political association with the SPD.

In recent polls in some West German states the electorate not only voted the SPD out of power but the FDP was also routed. The conservative Christian Democratic Party (CDU) gained ruling power in West Berlin last year and in Lower Saxony it won an absolute majority early this year. In the Hamburg municipal elections on June 6, the victorious trend for the CDU continued: the SPD stepped down in favour of the conservatives after holding power for 30 years in the city-state. The FDP could not even enter the local parliament because it could not poll the minimum 5 per cent votes.

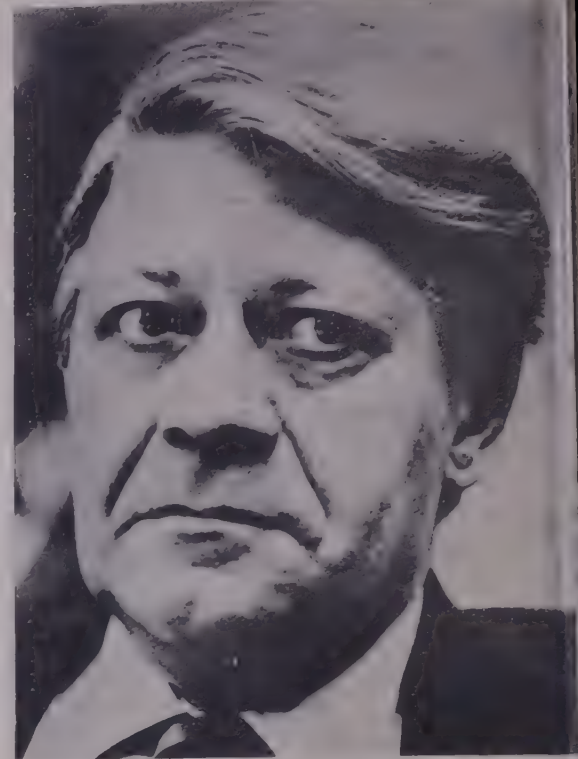
It is an irony of fate that particularly in Hamburg and West Berlin, where the SPD held power for more than three decades, the Social Democrats were thrown out from their "castles of power". Mr Helmut Schmidt, not only started his political career as Senator for Home Affairs in 1961 in Hamburg, but has been living in Bonn since 1967. He proudly identifies himself as "Hanseatic" and spends every weekend in the city-state. He was pained by the SPD downfall in his own town. Even his personal campaigning for the SPD victory in Hamburg could not check the emergence of the Christian Democrats as the single largest party in Hamburg.

Citing the examples of West Berlin, Lower Saxony and Hamburg political opponents of Mr Schmidt have said that

the Chancellor's popularity, once at the peak, has now fallen. "It is shameful for the Federal Republic of Germany if Mr Helmut Schmidt continues to remain as Chancellor," remarked the chairman of the CDU, Mr Helmut Kohl, who himself now claims the office of the Chancellor. "The SPD-FDP together have no majority in the country," Mr Kohl added.

Meanwhile the political differences between the ruling SPD and FDP have mounted. The parties do not agree on budgetary deficit finance, tackling of the unemployment problem, taxes and investment incentives. After the recent SPD party congress in Munich, where the left wing of the Social Democrats succeeded in passing resolutions for more rights for the working class, the FDP termed them as efforts towards "democratic socialism". The Free Democrats, who represent the interests of the white collar middle and upper-middle classes of German society, are now finding more "common ground" with the Christian Democrats. In the Adenauer-era, the FDP was a "natural" coalition partner of the CDU. However, as the then Chancellor Ludwig Erhard wanted to raise the taxes affecting the voting population of the FDP, the Free Democrats left the coalition with the CDU in 1966 and joined hands with the SPD in 1969.

Psychologically, however, the Free Democrats are now afraid of their own political existence. Till now the FDP, which polled between 5 and 12 per cent of votes, could play the role of the "king maker" as none of the big parties alone were able to establish the required absolute majority in the parliaments. Thus both the SPD and CDU needed the help of the FDP to come into power. In the coalition negotiations, the FDP traditionally claimed important portfolios like external affairs, home, economics and agriculture. For many social democratic falcons, the "five per cent party" was a thorn in their eyes as sometimes a large people's party like the SPD took dictation from the FDP and made compromises



Mr Helmut Schmidt

just to remain in power. This was one of the major reasons why Chancellor Schmidt very often felt that he was ruling without having a party base!

But since the recent municipal elections in Hamburg, there is a change and perhaps a turning point for the West German party system. The success of the newly formed party "The Green Alternative List" (GAL), a formation of environmentalists, anti-nuclear groups, left-wing intellectuals and individualists, has established a "third power" in the political landscape of West Germany. And this not for the first time. GAL is already represented in the parliaments of West Berlin, Lower Saxony and latest in Hamburg. The FDP, on the other hand, lost together with the SPD power in these states. Till now, however, both the SPD and CDU have rejected any kind of co-operation with GAL. But the fact remains that GAL voters are either ex-SPD supporters or at least socialistic minded. It is, therefore, only a question of time, before and when the SPD and GAL come to terms. In that case, the FDP — with whom the Social Democrats have more trouble regarding governmental policies such as nationalisation of industries etc — would no more be a desired partner for a coalition. Moreover, with the growth of GAL, the FDP might disappear totally from the political scene. This is why the leaders of the FDP are seriously thinking of trading horses in favour of the CDU, which is now riding on a success wave.

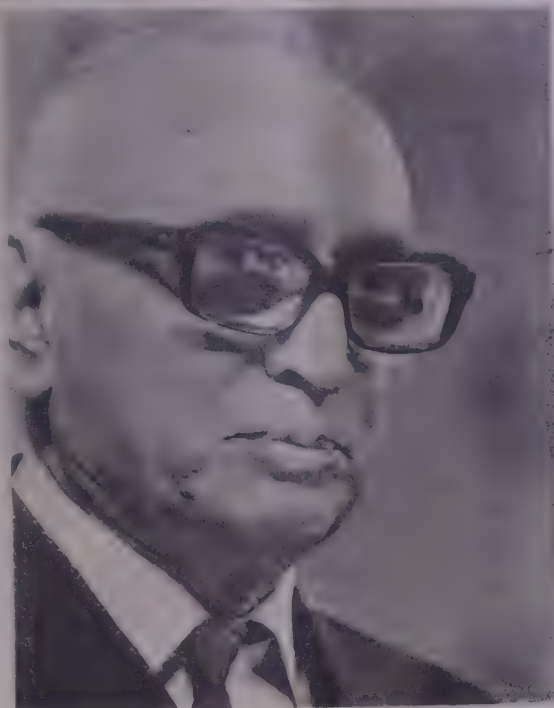
POLITY WHAT OUGHT WE TO DO?

By H.M. PATEL

have often wondered if one explanation for our general apathy towards misfortunes is not to be found in our remarkable ability to forget whatever is inconvenient to remember. Just think how soon we have forgotten about the Assam agitation, even though it still continues as strongly as when it started so many years ago. We do not talk about it any longer although initially we were all very gravely concerned about its consequences. Not only Assam, but the whole country has already suffered economically, while the possible political consequences are incalculable. How is it that the people in the rest of India have lost interest in a problem of such significance?

The gravity of the problem and the situation remains; if anything the situation has worsened further. The law and order situation meanwhile has worsened in all other states of the North-East India, in Manipur, in Mizoram and in Nagaland, and even from Meghalaya and Arunachal Pradesh ominous sounds are emerging. Why then have the politically wide awake people in the rest of India lost interest? Is it because we have become incapable of taking sustained and deep interest even in matters of movement? It would almost seem as if those who now constitute the government of India have a clearer and better understanding of the people of India, for they clearly seem to have taken the view that people generally would soon lose interest if they (the government) follow a policy of lying low or doing nothing.

But unfortunately for the government, its policy of drift, so successful elsewhere, is not succeeding with the people of Assam, who certainly have shown themselves to have remarkable staying power and, what is more, who have not allowed themselves to be provoked into violence. But how do we explain the conduct and



attitude of the people of the rest of India who have shown themselves to be agreeable to accepting the policy of inaction of the government, however harmful the consequences to the country? Is such conduct worthy of the citizens of a country, which claims to be, and would like to be considered a country, whose policies are rooted in high moral principles?

Derelict upholders of law and order

When the Bhagalpur blindings were brought to our notice, we became almost incoherent with indignation. So shocked were we that such a thing could happen at all! How could any Indian, a civilised human being and wedded to non-violence, bring himself to destroy the eye-sight of a fellow human being? And in this case, it was not an isolated act, but an operation carried out systematically on prisoners by their jailors, by a group of persons, in fact, whose normal duty was to maintain law and order and in this case to ensure safe custody of these very individuals! And yet this did happen in the State of Bihar, an important state within the Union of India. Strange though it may seem,

until the exposure occurred, the authorities up to the highest level did everything possible to cover up the incident. The whole country was aghast and stunned. But how long did this feeling of indignation continue? Not for long. Within a few weeks the feeling came to be as if only an unpleasant thing of inconsequential significance had happened, which perhaps ought not to have happened. A few months intervened and it was almost as if such a thing had never been known to happen at all!

In the same way, when it came to light that thousands of under-trial prisoners, held for petty offences, had been found to be rotting in state prisons for years, for periods which far exceeded the maximum sentences that could have been imposed on them! Again, there was vociferous indignation initially, but the unfortunate victims of gross administrative inefficiency and callousness continue to rot in prisons and so far as the country or the wide-awake intelligentsia is concerned the matter is almost completely forgotten. How do we explain this kind of attitude? Have we really become so utterly insensitive, so indifferent to injustice and wrong?

Thousands of distinguished men are so moved at the slaughter of cows that they go a long way to offer *satyagraha*! Why is it that no one's sympathy is aroused for the suffering of these large number of human beings, who are being kept imprisoned for alleged offences of a minor nature, for offences which are not proved and for which they have not been tried? And they have remained imprisoned for periods of not one or two years but as many as a dozen years or more! While there will always be differences of opinion as to what is more important, what are the right priorities, one would have thought that such gross injustice and suffering inflicted on individual human beings, who have clearly not done anything to deserve such inhuman treatment, and whose suffering is due only to the inefficiency and callousness of unimaginative bureaucrats, would be regarded as worthy of our immediate and top priority consideration. But for some reason, we have just forgotten these unfortunate men, and are content to let them suffer.

Forsaken state of law and order

When we became independent, it became customary also for us to deride the former administrative system as being

Mr Patel is a former Finance Minister of India.



The CRP jawans zealously keeping a watch over the area surrounding the Noonmati oil refinery when Assam agitation was at its peak.

no more than a law and order administration. And, indeed, it had never concerned itself with developmental problems. It was understandable that once we became independent we should move towards a developmental administration. This was no doubt the right approach so long as we were willing to recognise the importance of law and order even for achieving development. For a variety of reasons we have drifted into paying only lip service to law and order. Very short-sightedly, ministers and local party leaders (of course of the ruling party) have not hesitated to interfere with the strict and impartial enforcement of law. The result is being witnessed to-day throughout the country, and more particularly in states like Uttar Pradesh and Bihar, where there prevails virtual anarchy.

Only too frequently do we read of railway passengers being deprived of all their belongings. Long distance buses too are similarly waylaid, and passengers looted. And how the evil is spreading into southern states. In the early years

of our Independence, grave notice would have been taken of any occurrence of dacoity anywhere in India, and every effort made to see that there was no recurrence.

To-day, dacoities take place so frequently that no longer do we take notice of them. Murders likewise occur in such large numbers that they too have ceased to cause any shock or horror. Even a report that certain quite respectable residential areas of the country's capital city Delhi are not regarded as safe for women to be out in alone after dark is just regarded as a piece of news, and not as something to be taken immediate serious notice of. In short, the machinery for the enforcement of law and order has become so far weakened that the law-breakers have ceased to be afraid of it and in fact their number is increasing rapidly, drawing recruits from unbelievable sources. All this is widely known and yet neither the powers that be nor the general public appear to consider the situation grave enough to call for

determined and sustained action for the re-establishment of the universal respect for law and order.

Justice delayed is justice denied

Then consider another important safeguard of democracy—an independent, honest and efficient judiciary. Our judiciary, fortunately for us, does enjoy the reputation at its higher levels of independence and integrity. But there appears to have been some disregard of the maxim, justice delayed is justice denied. The arrears of every high court run today into thousands of cases. It was reported the other day that over 20,000 cases are pending to date in the Supreme Court which had first been placed before the court ten years ago! Again, this is a well-known fact, and hardly any serious attempt has been made to remove this grave shortcoming. And, surprising though it may seem, it is the practising lawyers who appear most reluctant to do anything about it!

Finally, reference may be made to the problem of population control. The 1981

Continued on page 44

ECONOMY WHAT OUGHT WE TO DO?

By VADILAL DAGLI

It is symbolic of our paralytic will that, instead of suggesting specific steps to change the style of the government and the management of industry, we go on debating whether the country is in the midst of recession or not. While industrialists assert that we are in the midst of recession, government spokesmen explain the fall in demand as a phenomenon of adjustment. While in the past there was a seller's market in such products as trucks, fertilisers and paper, a buyer's market has emerged and industry should learn to adjust itself to the new situation. Both the explanations have an element of truth, but they are irrelevant to the search for a specific prescription for the ailment of the economy. The fact of the matter is that both industry and government are engaged in shadow-boxing over a non-policy and amateurish *ad hocism* which lets corrupt politicians, businessmen and bureaucrats. That such an inefficient and corrupt economic policy hurts no one is due to the fact we have a sheltered market externally and internally we have a regime of controls which limits competition to the point of absurdity.

Whatever the assessment of government or the industry, facts about industrial output are disturbing. During the financial year 1981-82, the rate of growth of industrial output had been declining quarter after quarter in a manner which should make the policy-makers sit up and think about the reality of the Indian economy. In the first quarter of the financial year 1981-82, industrial output rose by 11.3 per cent over the corresponding quarter of last year; in the second quarter it rose by 9.1 per cent; in the third quarter the rate of growth decelerated to 7.5 per cent, and in the last quarter (January-March) the growth was only 4.7 per cent. Whether the deceleration in the rate of growth was due to power shortage, prolonged strikes, credit squeeze, or controls can be debated. But there cannot be any debate about the fundamental fact of our economy that there has been a yawning hiatus between the declared policy and its implementation. To the question "What ought we to

do?" about the economy, the simple answer should be, just implement what you declare!

II

If there is a gap between the precept and practice of the government, the business community is suffering from the disease of double-talk. Leaders of business and industry say one thing to ministers and the Prime Minister publicly and say exactly the opposite privately. According to press reports, at a recent dialogue between industrialists and the Prime Minister, some industrialists reportedly told the Prime Minister that they do not think there is any recession but there are only "signs of recession". They also told the Prime Minister that the economy had "definitely improved" because of the policy thrust provided by the government. Such sycophancy in a matter which could be immediately quantified, not only harms the business community itself but the country as a whole because it is liable to lead the

Prime Minister into a state of complacency. In fact the Prime Minister had called the industrialists to the meeting in order to hear from them specific suggestions to make further improvement and not to hear "three cheers" from them.

If the economy had "definitely improved", how could there be even "signs of recession?" As I pointed out a little while ago, the rate of growth declined from more than 11 per cent in the first quarter of the last financial year to a mere 5 per cent in the last quarter of that year. It is true that industrialists also discussed questions like credit squeeze, licence procedures and labour problems. But in the meeting they should have not only told the Prime Minister exactly what the government should do in the next few months but should also have indicated what the industry should do to put its own house in order. If you discuss credit squeeze and do not discuss the reform of the capital market (which has been lately taken over by speculators), then you should not blame the leftists for describing our worthwhile institutions like stock exchanges as gambling dens.

The most fundamental issue of the Indian economy today is to make fuller utilisation of the capacity that has already been created by the investment of more than Rs 1,25,000 crores by the planned



During the last three decades, we have invested over Rs 11,000 crores on irrigation and flood control. But the capacity utilisation of irrigation projects remains poor. This utilisation rate should go up to at least 80 per cent. A view of the Nangal hydel canal in Punjab.

effort. Whether it is a tubewell or a power house or a steel plant, the capacity that has been created has remained so cripplingly under-utilised that one sometimes feel asking the question: Are we a nation of human beings or morons? To conceal this national deficiency the government goes on dishing out to the people endless talk about new capacities to be created in power, in steel, in irrigation, in cement and in fertiliser. This creates an illusion of an economy on the move. But what actually happens is the enormous wastage of capital resources in one of the world's most capital-scarce economies. So there should be a convention that whenever a minister opens his mouth in Parliament or in public about new capacities in power or in industry he should state how much capacity is being utilised in that particular field. This is elementary honesty.

The other strategem which is being used is to declare proudly that during the next five years so much power will be generated or so much foodgrains will be produced. But no one tells what is going to happen during the current year. How is it that while discussing recession no government spokesman has spoken about the failure in the utilisation of capacity created in power or the state of industrial relations which permits a six-month old strike in the key industry of the country-textiles.

It is true that power generation recorded a rise of more than 10 per cent during 1981-82. However, this global figure does not reveal the fact that in a

number of states like Gujarat, Maharashtra, Orissa, Punjab, Rajasthan and West Bengal, power cuts ranging from 15 to 66 per cent had a debilitating impact on industrial and agricultural production. For example, Orissa was reeling under a power cut of 60 to 66 per cent for 22 major industries in the State. This dismal situation is the result of the fact that capacity utilisation of our thermal power plants is only 50 per cent. If power generation is low, transmission losses are of the order of 15 to 20 per cent. If some private sector power plants report the capacity utilisation of nearly 80-85 per cent, what is it that comes in the way of better utilisation of capacity of public sector power plants which dominate the economy? If you cannot run the power plants, convert them into joint sector corporations; if you cannot run joint-sector corporations, hand them over to the private sector, but for God's sake do not go on investing more and more in a crucial sector like power without ensuring reasonable capacity utilisation.

III

The current south-west monsoon has been playing truant since the last week of June. If there are no rains within the next few weeks, the crops already sown would be adversely affected and the country may not be able to achieve the targeted foodgrains production of 143 million tonnes during 1982-83. Even after the brisk wheat procurement the country has a foodgrains buffer stock of 12.5 million tonnes which is lower than that

of 13.6 million tonnes a year ago. On the one hand in Assam floods have damaged standing crops in the vast areas and on the other hand, we have drought in Rajasthan and West Bengal. In Rajasthan all the districts were declared famine stricken and in West Bengal the jute and mesta production was expected to decline from 50 lakh bales to 30 lakh bales.

This brings us to the crucial question of irrigation. During the last three decades or so we have invested more than Rs 11,000 crores on irrigation and flood control. As a result, at the end of March 1981, the gross irrigated area rose to 50 million hectares, or 34 per cent of the gross cropped area.

But the distressing aspect of the food problem is that, we are utilising less than 60 per cent of the irrigation facilities created. In the Productivity Year 1983 the prime task should be to increase the utilisation of irrigation facilities already created to at least 80 per cent. If the capacity utilisation of irrigation projects is poor, what about the on-going irrigation projects? Here also the record of the past thirty years is quite dismal. As usually irrigation projects get delayed which result in cost escalation. According to the latest reports, as many as 48 major irrigation projects were delayed by five years or more than the original time schedule. Of these in as many as 311 projects the cost over-run worked out to be more than 500 per cent! Some of the major projects with a time overrun of five years or more and the cost overrun of 500 per cent or more are: Nagarjunasagar, Gandak, Kosi Barrage and Eastern Canal, Tawa, Gurgaon Canal, Upper Krishna State I and Rajasthan Canal State I and II. What is more important even than the cost escalation is the loss of potential production resulting from delayed completion of projects. Is it surprising that the spectre of hunger still haunts the majority of the people?

IV

It is also symptomatic of the way we are governed that all these developments should take place in a year which has been designated as the Productivity Year by the Prime Minister. In almost all states major industries are affected either by labour trouble or by shortage of power. But no one bothers. As far as the economy is concerned, we hardly have any government. This has been dramatically emphasised by the amazing textile strike in the city of Bombay. The damage done to the economy by such strikes will be felt for at least a decade to come.

What ought we to do – Polity?

Concluded from page 42

census figures are sufficiently alarming to wake us all to a realisation of not only the gravity of the problem but of the urgent need for effective steps to reduce the birth rate. It is meaningless to talk of removal of poverty unless the growth of population is adequately moderated. We know all this. And yet we are unwilling to press upon the authorities to take vigorous steps to control population. They have of course shown but little indication of making use of voluntary agencies, although these latter can without a doubt be very effective. And yet we are content to let this problem drift, expressing at times a regret that what with the reducing death rate, in spite of a fall in the birth rate, there is not much chance of making a really noticeable dent in the population growth. Do we not realise how many

problems are created because of this inevitable population growth?

What then must we do?

Many other examples of our general indifference to wrong doing and to inefficiency, on the one hand, and of our utter disregard of public interest on the other can be given. But enough has been said here briefly and illustratively to show that we, the people of India are merrily wending our way towards the destination, disaster. Neither moral nor material calamities seem to awaken us to a sense of our duty. Something concrete nevertheless has to be done. But what? That is the question which is posed here for every one to ponder over and find an answer.

SPECIAL REPORTS

Identifying fake industrial sickness: GSFC's remarkable performance

From PADMA H. RAO

The growing volume of overdue loans affects many state financial corporations. This also affects the capacity of these financial corporations to extend financial assistance to intending entrepreneurs. The Gujarat State Financial Corporation has found out that not infrequently the overdue loans get accumulated because some units fake sickness although, in fact, they are quite viable and able to pay the loan instalments and interest.

AHMEDABAD

It was only three years ago that the national financial institutions like the SBI and the ICICI had threatened to withdraw industrial refinance facilities to the Gujarat State Financial Corporation (GSFC) unless it showed tangible results in loan recovery. And they were entirely justified in doing so, because the rate of loan recovery by the corporation had sunk to an abysmally low level.

Alarmed by the threat, the GSFC moved quickly. It has since not only put its house in order, but has also made remarkable progress and overtaken its counterparts in other states in the matter of loan recovery, thus improving its inherent strength to expand its credit facilities.

The following figures speak for themselves:—

(rupees, in crores)			
Year	Sanctions (gross)	Disbursements	Recovery
1977-78	24.54	13.95	7.79
1978-79	28.49	18.74	8.47
1979-80	36.35	22.29	11.85
1980-81	45.34	27.51	19.62
1981-82	59.10	33.05	27.46

During 1978-79, GSFC's gross sanctions rose by Rs 3.95 crores and disbursements by Rs 4.79 crores, while the recovery increased by as little as Rs 0.68 crore. This was the rockbottom level of performance which sent waves of scare in the corridors of national refinancing

institutions, compelled to serve the warning.

By March 1980, GSFC's performance showed a distinct improvement, following measures taken by the corporation for setting up a powerful loan recovery machinery. The Gujarat Government had also by then enacted a stringent legislation designed to force the hands of the defaulting units to repay the credits. The legislation, the Gujarat Public Moneys (Recovery of Dues) Act, 1979, made the GSFC's task of loan recovery incredibly easy by providing for recovery of loans as part of land revenue by revenue authorities.

The performance of 1979-80 has clearly reflected this. During the year, gross sanctions rose by Rs 7.86 crores and disbursement by Rs 3.55 crores, while loan recovery increased by Rs 3.38 crores over the previous year. Ever since, the tempo has gathered a great momentum. In 1980-81, gross sanctions increased by Rs 8.99 crores, disbursements by Rs 5.22 crores and loan recovery Rs 7.77 crores. Last year (1981-82), gross sanctions increased by Rs 13.76 crores and disbursements by Rs 5.54 crores, while loan recovery rose by Rs 7.84 crores over the previous year's performance.

The GSFC has initiated action against 949 units so far as per remedies available under section 29 of SFC Act, 1951 and Gujarat Public Moneys (Recovery of Dues) Act, 1979.

For identifying the genuinely sick units from those faking sickness among the loan defaulters, the GSFC has undertaken a special study of units in default of more than Rs 50,000 and found that a majority of them were healthy, but deliberately defaulted in loan repayment.

For tackling this problem, the GSFC has launched a special recovery drive at important industrial centres to deal firmly with defaulters. Persons connected with the defaulting units were enlightened about their legal obligations and of the legal remedies available to the corporation.

As a result of all these measures, the corporation has been able to recover as large a sum as Rs 27.46 crores — the highest sum by any SFC in the country — during 1981-82. This achievement represents 40 per cent improvement over the previous year's similar improvement.

Record assistance

For sustaining the industrial tempo in Gujarat, the corporation sanctioned during 1981-82 record assistance Rs 59.10 crores to 1,614 units — an increase of 30 per cent over the previous year.

Also during the year, the corporation extended loans totalling Rs 21.42 crores to 441 units in backward districts of Gujarat — an increase of 28 per cent in the assistance and 50 per cent in the number of loanes over the previous year. It also sanctioned a sum of Rs 34.84 crores to 636 units in 81 growth centres in Gujarat.

The corporation has played a pivotal role in the development of small scale industries. During the year, it sanctioned a record net assistance of Rs 35.07 crores to 1,270 small industrial units. At present the small-scale units account for 96 per cent among the units benefiting from the GSFC financial assistance so far.

For ameliorating the conditions of weaker sections like artisans, craftsmen etc., the corporation gave loans totalling Rs 1 crore to 452 units under its mini loan scheme. During the year, it also extended an impressive increase in finance to scheduled caste and tribe entrepreneurs. It extended loans of Rs 67 lakhs to 46 entrepreneurs recording an increase of 123 per cent in loan amount and 59 per cent in number of borrowing units over the previous year.

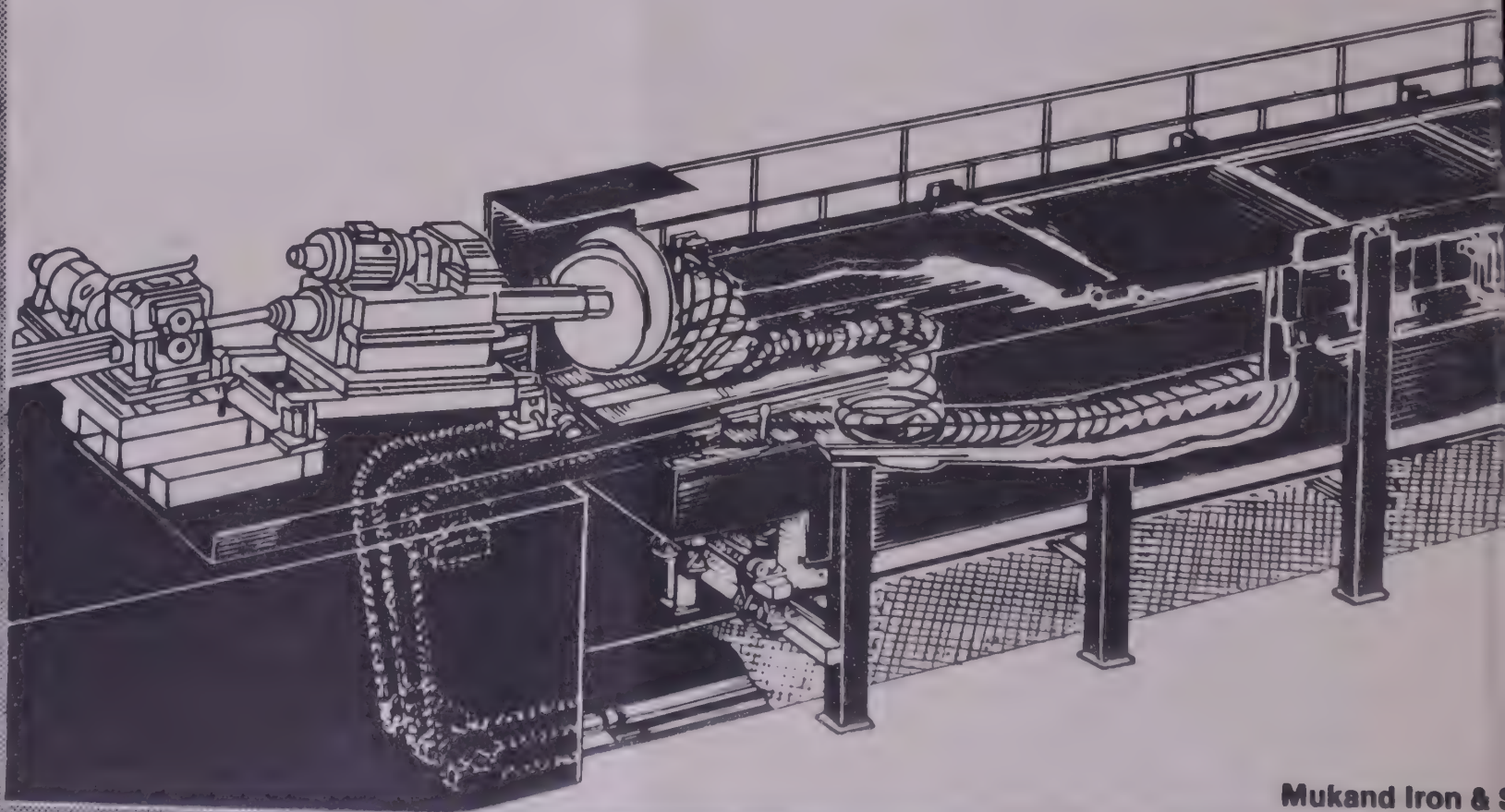
The GSFC sanctioned soft loans of Rs 192 lakhs to 96 units set up by new entrepreneurs in 1981-82. Further, it granted loans totalling Rs 3.05 crores to 18 projects sponsored by non-resident Indians during the year. For the first time, the corporation initiated a scheme to finance qualified medical practitioners for buying electro-medical equipments

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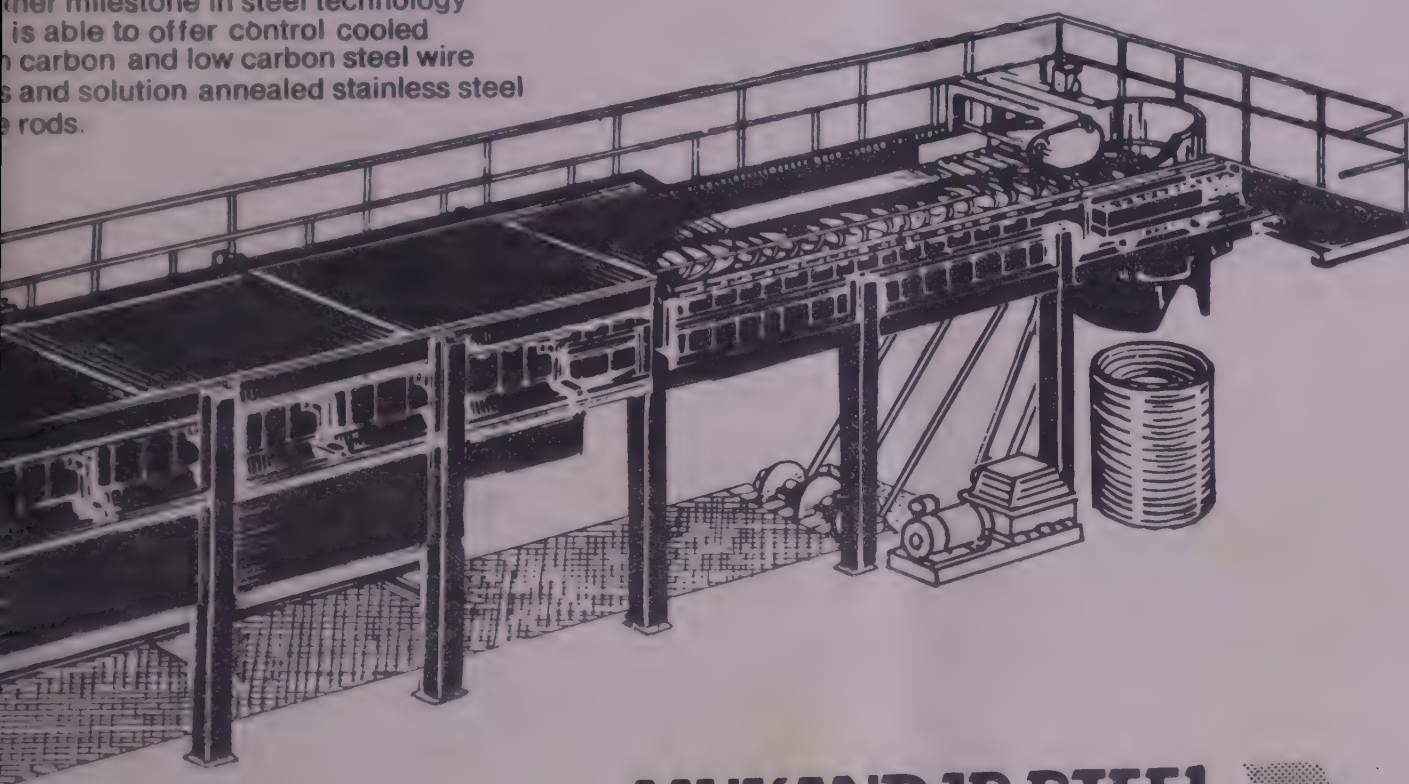


Mukand Iron & S

ing system at Mukand

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The corporation disbursed loans amounting to Rs 33.05 crores in 1981-82 as against Rs 25.51 crores in the previous year.

Industrialising rural areas

The corporation took a number of decisions during the year with a view to industrialising the rural and semi-urban areas. Summing up the new approach, Mr R.D. Shah, chairman of GSFC, told the annual general meeting of the corporation's shareholders in Ahmedabad on June 26, that "industry should be made a way of life in villages, like agriculture."

For achieving this purpose, the GSFC took steps to coordinate its efforts with other developmental agencies for the rapid growth of entrepreneurship in R-urban (rural and semi-urban) areas. Accordingly, it introduced a scheme called "door step service" under which financial aid and all such help were provided at "door step" to groups of about 10 to 15 rural-based entrepreneurs in a concerted manner jointly with similar agencies like the Gujarat Industrial Development Corporation (GIDC) and Centre for Entrepreneurship Development (CED). During 1981-82, the corporation extended a total credit of Rs 188 lakhs to 98 entrepreneurs at eight R-urban centres in Gujarat.

Also, it stepped up assistance under 20-point programme for bringing rural

masses under productive employment. The assistance rose to Rs 11.10 crores in 1981-82 from Rs 6.59 crores in the previous year.

The GSFC has also decided to provide term loans under bankable schemes formulated by the State Government for the benefit of a large number of rural growth centres, which did not have banking facilities. It has decided to implement the scheme with the help of district industries centres (DIC). Already, it has implemented this scheme in two centres covering 29 entrepreneurs.

Resources

During 1981-82, the GSFC received further sizable loans totalling Rs 4 crores carrying interest rate of 3.5 per cent per annum in lieu of capital from the Gujarat Government and the IDBI (Industrial Development Bank of India) on a matching basis. In addition, the IDBI also unilaterally contributed Rs 19.04 lakhs raising its shareholding on par with that of the State Government and a further sum of Rs 13.34 lakhs as additional loan consequent upon the transfer of a similar sum of special reserve fund to the loan account in lieu of the capital by the GSFC.

The corporation also floated three series of bonds aggregating Rs 7 crores during the year, and collected a total of Rs 7.70 crores. In fact, it was able to manage its activities with lower refinance of Rs 21.33 crores from the IDBI as

against the refinance of Rs 23.11 crore in the previous year, mainly due to improved mobilisation of its internal resources and higher loan recovery.

The corporation also offloaded its investments in shares, which had devolved on it earlier as a result of underwriting obligations and realised a price of Rs 4 lakhs, thereby earning capital gains of Rs 7.09 lakhs during the year.

APSFC: Record disbursements

HYDERABAD

THE Andhra Pradesh State Financial Corporation (APSFC) has surpassed its past performance in terms of sanctions, disbursements and recovery and touched new peaks.

The corporation during 1981-82 received 2134 loan applications for Rs 7477.67 lakhs under different schemes. The total number of applications considered by the corporation during the year were 2473 for an amount of Rs 8977.11 lakhs, including 339 applications for an amount of Rs 1499.14 lakhs carried over from the previous year.

The total applications sanctioned by the corporation, inclusive of bridge loans and Special Capital Assistance during 1981-82 has recorded an all time high of Rs 6185.71 lakhs against Rs 4737.84 lakhs during the previous year. The disbursements during the year have also recorded a fresh high of Rs 3741.06 lakhs as compared to Rs 3065.05 lakhs during the previous year. The total cumulative effective sanctions and disbursements have increased to Rs 2442.16 lakhs and Rs 16745.86 lakhs respectively. The total amount of financial assistance outstanding has gone upto Rs 12760.04 lakhs from Rs 10003.45 lakhs during the previous year indicating an increase of 27.56 per cent. The backward areas of the State continue to receive priority treatment by the Corporation and accordingly during the year an amount of Rs 2753.40 lakhs has been sanctioned to the units located in backward areas compared to Rs 2318.54 lakhs sanctioned during the previous year, recording an increase of 18.80 per cent. Like-wise the small scale and tiny sector units have also been sanctioned loans to the tune of Rs 4578.82 lakhs, compared to Rs 2831.85 lakhs during the previous year.

Promoting consumption of long staple cotton

BOMBAY

NEW Delhi's decision to levy excise duty varying from two per cent *ad valorem* to 15 per cent *ad valorem* instead of flat rate of 15 per cent *ad valorem* on cotton fabrics in which the average count of yarn is between 41s and 50s has been widely welcomed by the cotton textile industry. This, however, they hope is the beginning of the rationalisation of the entire excise duty structure on cotton fabrics which till now showed a sharp jump when counts above 40s were involved. The mills in these circumstances preferred not to go in for superior varieties of cotton or even underspin them to avoid paying the excise duty of 15 per cent for counts above 40s. According to the latest government decision cotton fabrics which have an average

count of yarn of 51s and above will, however, continue to attract *ad valorem* excise duty of 15 per cent.

The production in recent years of long and extra long staple varieties is of the order of 29 lakh bales or 36 per cent of the total output of 80 lakh bales. But superior varieties of cotton have not been commanding recently attractive rates and the Maharashtra Government has decided to discourage cultivation of long staple Varalaxmi cotton. The India Cotton Mills' Federation has said that the rationalisation of the excise duty structure up to 50 counts is a step in right direction, and has pleaded that even now it would be desirable to carry out the rationalisation whole way by dropping the count restriction altogether with a view to giving a further fillip to the consumption of longer staple cottons.

PELLET EXPORTS SUSPENDED

MORMUGAO

THE Rs 56-crore fully export-oriented 1.8 million tonne capacity Mandovi Pellets Ltd, a joint venture project, promoted by Chowgule and Company and Steel Authority of India Ltd, will remain closed for another three years if the Government of India accepts the proposal of its board of directors. The plant has suspended operations since April 1981. The closure over the three-year period, however, may actually prove beneficial to the company which, otherwise, had been making large losses since its commissioning in 1979, because of under-utilisation of capacity and the spectacular rise in fuel oil costs leading to a high cost of production of pellets. The under-utilisation of the capacity was a reflection of the fact that the Goa Government had not been able to supply 25 mw of electric power, which is required to operate the plant to its full capacity, and which it had agreed to do so far back in 1976, when Chowgules had entered into negotiations for the setting up of the plant. Because of operation at less than rated capacity, the consumption of fuel oil and electric power per tonne of pellets was of the order of about 10 litres and 20 kwh respectively leading to high cost of production and consequential heavy losses.

Premium

Mr V. D. Chowgule, chairman of the company, said at the annual general meeting of the company, held in Mormugao a few days ago, that during the period of closure the Japanese steel industry had agreed to accept 2.3 million tonnes of iron ore lumps/fines per annum with premium as a substitute for pellets. These arrangements would enable the company to earn Rs 29 crore as a premium during the three-year period of closure of the plant, and this should help the company to reduce its loans in foreign exchange and thereby avoid further losses which, otherwise, would have been incurred if the plant was to be put into operation. The operations for the year 1980-81 showed a loss of Rs 9.84 crores after providing depreciation of Rs 523 lakhs and interest and finance charges of Rs 432 lakhs. The cumulative carry-forward loss

at the end of 1980-81 was of the order of Rs 14.39 crores.

Pellets for direct reduction?

It is learnt that when a Mandovi Pellets delegation, headed by Mr Chowgule, recently visited Japan, the Japanese indicated a price of 54.3 cents per pound which, they said, they were paying to other suppliers. Against this, the cost of production of Mandovi Pellets worked out to 75 cents per pound. The Japanese, who themselves have advanced a big loan to the company, as a gesture of goodwill, agreed in these circumstances to buy 6.9 million tonnes of iron ore lumps/fines during the three-year period ending 1985 at a price of Rs 135 crores, which, Mr Chowgule has explained, meant a premium of Rs 29 crores over the normal price being paid to Goan ores. If the plant had continued to supply pellets to the Japanese at a price of 54.3 cents per pound, it is estimated that it would have run into a loss of Rs 29 crores over the three-year period.

The closure will be utilised by the company's technical experts to continue investigations of possibilities of production of iron ore pellets suitable for direct reduction plants. Mr Chowgule has explained that a number of direct reduction plants were being installed currently in South East Asia and West Asia which could be potential customers for direct reduction pellets. Investigations of other means of cost reduction would also continue, he added. It is understood that, faced with the problem of power shortage, the company is also examining the feasibility of setting up a captive plant to produce about 10 mw of power at a cost of about Rs 2 crores. The balance of the 15 mw of power, it is hoped, would come from the Goa Government. The Ramagundam power project is expected to be commissioned in 1984 and this is expected to augment the power supply to Goa. Goa has no generating unit of its own and at present depends on power supply from Karnataka and Maharashtra.

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

		Rs per kg				Percentage variation on July 2, 1982 over		
	Quality	July 2, 1982	June 25, 1982	June 4, 1982	July 3, 1981	a week ago	a month ago	a year ago
Rice	Average	4.50	4.25	4.00	3.50	5.9	12.5	28.6
Wheat	Average	3.60	3.60	3.50	3.50	—	2.9	2.9
Jowar	Average	3.00	3.00	3.00	2.20	—	—	36.4
Bajra	Average	3.00	3.00	3.00	2.20	—	—	36.4
Gram dal	Average	5.00	5.00	5.00	6.20	—	—	-19.4
Tur dal	Average	7.00	7.00	6.00	6.50	—	16.7	7.7
Potatoes	Average	2.50	2.50	2.50	2.40	—	—	4.2
Onions	Average	1.75	1.50	1.25	1.60	16.7	40.0	9.4
Milk per litre	Buffalo	7.00	6.00	6.00	5.60	16.7	16.7	25.0
Tea	Average	24.00	24.00	24.00	23.00	—	—	4.3
Coffee	Average	19.00	19.00	19.00	17.50	—	—	8.6
Kerosene per litre	—	1.66	1.66	1.66	1.51	—	—	9.9
Bread (400 gm)	—	1.55	1.55	1.55	1.55	—	—	-9.9
Sugar	Average	5.50	5.50	5.80	7.00	—	-5.2	-21.4
Gur	Average	5.50	5.00	4.50	6.00	10.0	22.2	-8.3
Groundnut oil	Average	14.50	15.00	14.00	15.00	-3.3	3.6	-3.3
Vanaspati	Average	17.00	17.00	17.00	16.00	—	—	6.3
Toilet soap	—	2.00	2.00	2.00	1.90	—	—	5.3
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

A new tin agreement

LONDON

THE sixth International Tin Agreement has come into force from July 1 after months of uncertainty during which it was not even clear that Malaysia, the major producer of this metal, would join the agreement. The Malaysian decision to join the agreement was conveyed only two days before it was announced that the five-year long tin pact would be in operation from July 1.

Even then not all the producers and consumers have joined the agreement. Only four major producers — Malaysia, Indonesia, Thailand and Australia — which account for about 79 per cent of the world's total output and 16 consuming countries, which account for less than 50 per cent of the world's use of the metal, have joined the pact. The United States, the largest consumer of tin, has decided not to participate in the agreement. The Soviet Union and several smaller countries are also not willing to join, though Japan and the EEC have agreed to participate. Even here West Germany and Britain are insisting on a clause in the agreement opposing manipulation of the market. Obviously, they do not want to see the emergence

of a 'mystery' buyer, as one appeared earlier this year, pushing up the prices to a record level of £ 9,000 a tonne. Many people in the market had linked Malaysia to the operations of that 'mystery' buyer.

The International Tin Agreement is the oldest commodity arrangement that regulates the market by use of a buffer stock. Its council buys surplus tin whenever necessary and also uses export control measures to prevent tin prices falling below an agreed floor.

Tin prices, however, have recently softened very much from the record level of £ 9,000 a tonne earlier this year, and in the third week of June, prices on the London Metal Exchange were at a five-year low on speculation that Malaysian might not join the tin agreement. The spot prices, however, recovered to £ 6,295 a tonne from the earlier low of £ 5,475 on indications that Malaysia would after all join.

But obviously the producers, and particularly Malaysia, are not happy at the fact that International Tin Agreement has not been able to prevent wide fluctuations in the metal prices, thus seriously limiting the foreign exchange earnings from this important source. The US

decision earlier this year to sell 30,000 tonnes of tin from its strategic stockpiles had made a sharp impact on prices and Malaysia and other producers feared that such action by the US, which has large stocks of stockpile tin, may be repeated. There are already some reports that the Reagan administration proposes to spend about \$ 700 million over a five-year period to buy strategic material and that these purchases will be financed from the sale of surplus tin and resumption of silver sales.

Second, the buffer stock this time will be much smaller than 50,000 tonnes. According to the International Tin Council (ITC) chairman, Mr Peter Lai, initial contributions from participating governments will finance a buffer stock of only 19,000 tonnes. The pact will further enable the ITC to finance an additional 20,000 tonnes through loans. But in any case because of the US and seven other nations staying away, the buffer stock operations may not be even as effective as in the past.

These calculations have led Malaysia, Indonesia and Thailand, the South-East Asian tin-producing countries, to announce a separate association to promote producers' interest outside the international pact. Reports from these three countries suggested that it is only when Indonesia and Thailand promised to join this producers' association that Malaysia agreed to join the International Tin Agreement. It is not as yet clear how this producers' association will operate. The Malaysian Primary Industries Minister, Mr Paul Leong, has indicated that the association, besides playing its role in research and development, could also have a marketing role. According to him, producers would prefer to increase direct marketing of tin to end-users instead of going through third parties. He was quoted as saying it was "too early to spell out actions to be taken by the association" in reply to a question whether the association would take independent measures to regulate the supplies of tin to the market. Indonesian and Thai officials have, however, suggested that the producers' association would operate in co-operation with the ITC.

Bharat Petroleum strike settled

BOMBAY

THE management of Bharat Petroleum Corporation Limited (BPCL) signed an agreement with the three unions representing 1,455 permanent and temporary workers at its refinery here on June 17, ending a five-month long strike. The agreement signed with the Bharat Petroleum Corporation Refineries Union, the Process Technicians and Laboratory Analysts Union and Petroleum Workmen's Union covers all labour employees and clerical staff.

The main features of the agreement valid for four years from January 1, 1982, include extension of the retirement age limit for permanent workers by three years from 55 to 58 and an *ad hoc* salary increase of Rs 100 per month for temporary workers to be

adjusted later against other benefits that may be given in the settlement of the wage structure.

Announcing the conclusion of the settlement, Mr U. M. Kini, BPCL chairman and managing director, said that while all the 888 temporary employees would get a raise of Rs 100 a month, 382 of them in the senior grades would get Rs 325 per month and the 93 temporary clerks would get a raise of Rs 105 per month. The Corporation would incur an immediate expenditure of Rs 20-22 lakhs on the settlement.

Mr Kini said that in spite of the strike, the refinery worked at 80 per cent capacity during the strike period producing 12,000 tonnes per day against the normal output of 15,000 tonnes because of the loyal service rendered by officers.

PARIS

Mitterand wants training infrastructure for developing countries

ACCORDING to the French President, Mr Francois Mitterand, the ability to solve the crisis encompassing all states present rested on the political will of nations. Presenting a report on technology, employment and growth at the Versailles summit of seven industrialised nations, he said, since the Ottawa summit, five million men and women had lost their jobs in these countries, and, in the developing countries, about 30 million human beings were dying of hunger. Production, investment and trade were stagnant in the developed countries with the menace of protectionism. Money markets were in disorder, interest rates high, preventing growth and the creation of employment.

Mr Mitterand, however, saw some encouraging signs of growth and a slow down in inflation in some countries in the current year. He said, the evolution of science and technology should be controlled and directed so that its results did not work against man. In the past five years there have been big advances in biotechnology and electronics. Biotechnology should help the control of famine, disease and over-population. In future, he said, the joint use of biochemistry, microbiology and genetics would enable the industrial exploitation of micro-organisms and transform entire sectors of the economy — not merely chemicals and medicine but also food and energy. Similarly, in electronics, microelectronics, new composite materials and optical fibres would profoundly modify telecommunications, transport and the mechanical industries.

Mr Mitterand dealt with job losses because of technological changes and said, by 1990, 20 per cent of mass production in the industrialised countries would be on automatic assembly line machines, which would reduce employment. Jobs in the tertiary sector, banks and insurance, would also be affected and several million jobs lost in the industrialised countries by 1990. He suggested that ways be found of directing these changes so that the new technologies created as many, if not more, jobs than they reduced, not merely through new lines of industrial production but also through associated services — such as distribution, engineering, consultancy, development and leisure activities.

The line of action he proposed for the industrialised countries was support-

ing demand that favoured the development of markets for new lines of production, consumption and services; stabilisation of interest and exchange rates and a big effort to mobilise professionals.

The French President expressed concern at the world monopoly some firms enjoyed in some areas — in biotechnology



President Mitterand

a few firms control one-third of world production, and, in advanced electronics, eight firms control 70 per cent of the market for integrated circuits. Technological discoveries should be put at the service of countries in the South, he stated. Technology should be transferred to the developing countries with adaptations and also conditions created for the evolution of technologies directly related to their existing conditions. He warned against the dangers of isolation which technological progress could create but which worked against the medium term interests of all countries.

He made some sweeping proposals for the joint development of the world economy and said, these measures should be jointly put into operation, otherwise protectionism would grow and commercial war get aggravated. He made six comprehensive proposals for the industrialised countries — fixing a percentage of GNP between 1982-1990 for research and development; priority action for technological co-operation between private and public firms and nations; innovation; the progressive creation of a world

market for technology; joint initiatives to enable countries in the South to acquire new technologies and, finally, stabilising the international monetary system.

He also emphasised the importance of creating a training infrastructure in the developed countries to enable people to make the transition and adopt new technologies. This would extend to train-

An interesting proposal Mr Mitterand made was the preparation of an international charter of communications based on five principles — respect for the diversity of languages, promoting the harmonisation of legislation on matters related to information, intellectual property, the contract right and protection of individual liberty, the evolution of common rules for the exchange of international information, protection of the sovereignty of nations and a guarantee that countries in the South should control their own communications media.

Bombay spot exchange rates of currencies as on 5th July 1982

(Currency units per Rs 100)

Country	Currency	Selling T.T.D.	Buying D.T.T. Clean
Australia	A. \$	10.110	10.345
Austria	A. Schilling	179.90	183.80
Belgium	B. Franc	486.50	497.00
Canada	C. \$	13.220	13.500
Denmark	D. Kroner	88.20	89.90
France	Franc	70.65	72.20
Hong Kong	H.K. \$	60.70	62.00
Italy	Lira	14311	14599
Japan	Yen	2640	2689
Malaysia	M. \$	24.36	24.85
Netherlands	Guilder	28.17	28.73
Norway	N. Kroner	65.40	66.75
Singapore	S. \$	22.22	22.65
Sweden	S. Kroner	63.20	64.50
Switzerland	S. Franc	21.68	22.11
UK	£	5.9995	6.0435
USA	\$	10.370	10.475
West Germany	D.M.	25.50	25.97

Source: Syndicate Bank, International Division, Central Office, Bombay 400 021

SPEECH OF THE CHAIRMAN



Shri R.D. SHAH

Gentlemen,

The dynamic and growth-oriented industrial policy for which the Government of Gujarat is widely known, has been instrumental in establishing Gujarat State amongst the premier industrialised states in the country. The Government have made various incentives available for setting up industries more attractive by providing liberal concessions to 'pioneer units'. This would help in industrialising even the far flung areas of the State. Implementation of the New Twenty Point Programme and observance of the year 1982 as the year of productivity would also accelerate industrial development.

The selection of Ubharat as land fall point for offshore pipe line, two fertilizer projects of KRIBHCO with investment of Rs. 900 crores, plan for petrochemical complex at Kavas, an agreement with Madhya Pradesh for super thermal power station, a pilot plant for tidal power and an atomic power station are all fore-runners of rapid industrial development in the State in the years to come. A number of large projects contemplated and planned are expected to accelerate the development of small and ancillary units in the State.

I am happy to report that the high growth rate achieved by Gujarat State Financial Corporation (GSFC) in the year 1980-81 has been further accelerated during 1981-82. It has recorded significant progress in all spheres viz. sanctions, disbursement and recovery. I would like to highlight some of these:

i) The Corporation has sanctioned record assistance of Rs. 5910 lakhs to 1614 units which is an all time high with reference to amount as well as number of units.

ii) The Corporation's assistance has been instrumental in development of 441 units with loans of Rs. 2142 lakhs in backward districts in 1981-82. It also sanctioned a sizeable amount of Rs. 3484 lakhs to 636 units in 81 growth centres.

iii) A record net assistance of Rs. 3507 lakhs is sanctioned to 1270 small scale units. With ever-increasing assistance to this sector now over 96% of the units assisted by the GSFC are from SSI sector.

iv) Amongst the weaker sections like artisans, the Corporation provided assistance of over Rs. 100 lakhs to 452 units under its Mini Loan Scheme. With loans of Rs. 67 lakhs to 46 entrepreneurs belonging to SC/ST communities an impressive rise of 123% in amount and 59% in number of units is achieved in 1981-82.

v) The Corporation encouraged non-resident Indians to set up industries in the State by sanctioning Rs. 305 lakhs for 18 projects. 96 new entrepreneurs were also sanctioned soft loans of Rs.192 lakhs.

The Corporation disbursed loans of Rs. 3305 lakhs in 1981-82.

In its endeavour to play the role of an important Regional Development Institution, GSFC took important measures in the year 1981-82 as follows:

a) My suggestion to effect co-ordination amongst developmental agencies for rapid growth of entrepreneurship in R-urban areas has been acted upon and "Door Step Service" has been introduced to serve the R-urban entrepreneurs. Under this scheme a group of 10 to 15 entrepreneurs are assisted in participation with Gujarat Industrial Development Corporation, Centre for Entrepreneurship Development and other developmental agencies so that all formalities right from training to sanction of loans are finalised at the very door steps of the entrepreneurs. The first such programme was inaugurated by the Hon. Chief Minister at Borsad and 8 centres are covered so far. We propose to pursue the Door Step Service programme vigorously in the current year.

b) The Corporation recently introduced 'Bankable Scheme' of the State Government and sanctioned loans in rural areas to a group of 5 or more entrepreneurs where banking facility has not yet reached. During the year 1981-82 the Corporation sanctioned loans to 29 entrepreneurs under this scheme.

c) To serve the existing loanees whose repayment records have been satisfactory, the Corporation has decided to provide additional term loan to the extent of 20% of the original loan or Rs. 5 lakhs

HIGHLIGHTS OF 1981-82:

1. GSFC sanctioned Rs. 5910 lakhs to 1614 units - an all time high achievement.
2. Sanctions within 90 days ensured.
3. SC/ST Entrepreneurs got 123% higher assistance under 20 point programme.
4. A new programme—Door Step Service to the R-urban entrepreneurs is initiated.
5. A record disbursement of Rs. 3305 lakhs.
6. A record recovery of Rs. 2746 lakhs.

whichever is less for acquiring machinery or balancing equipment by simplifying various formalities.

d) The Corporation set before itself an objective of disposing off loan applications within a period not exceeding 3 months. I am happy to report that as at the end of 31st March 1982, not a single loan application was pending in the Corporation for a period more than 90 days.

e) The Corporation has switched over its accounting system from mercantile to cash basis. Despite this important change in the accounting system where income is accounted for only when realised, the Corporation's working has shown surplus of Rs. 26 lakhs in the very first year.

I am happy to report that the measures taken by the Corporation in 1980-81 which were followed up vigorously in 1981-82 for recovery and follow-up, which is the very life line of the Corporation's functioning, has yielded good results. The organisational machinery was strengthened for the purpose of effecting recoveries. The Corporation initiated action against 949 units so far as per the remedies available under Section 29 of the SFCs Act and Gujarat Public Monies (Recovery of Dues) Act. Special recovery drive was also launched in important centres to deal with defaulters. The Corporation also enlightened the defaulting entrepreneurs about their repayment obligations.

As a result of these efforts a sum of Rs. 27.46 crores was recovered giving a rise of 40% over the sharp rise of 65% achieved during 1980-81.

The Corporation has created a Follow-up Section which effectively analyses the causes of sickness to render timely guidance about the remedial measures. It has started collecting relevant information and feed back about functioning of the assisted units. Simultaneously the Corporation would also make effective use of the institution of nominee Directors on the Board of the assisted companies.

The Corporation is called upon to play an effective role in meeting the legitimate requirements of industries to sustain rapid strides. Gujarat is taking in industrialisation. The Corporation initiated several steps:

1) The GSFC will vigorously pursue the policy of decentralisation of functions and delegation of authority so as to meet the needs of small borrowers and to serve them expeditiously and locally.

2) The Corporation will have to prepare itself for development of ancillary and related industries in the small scale sector to serve the major industries coming up in the State.

3) It has been decided to set up one more Regional Office at Bhavnagar to serve the districts of Bhavnagar, Amreli and Surendranagar.

4) To build its manpower through the skill upgradation, proper orientation and motivation, extensive and intensive training programmes for the staff and officers will have to be designed and conducted.

5) State level Advisory Committee was constituted and its first meeting held in the year. The Corporation further added Local Advisory Committees and constituted in all 14 such Committees at various GIDC estates.

6) A publication titled "A Dialogue with the Entrepreneur" is brought out to familiarise the entrepreneurs with modalities of the Corporation's working and scope of its activities.

Looking to the difficulties experienced and concern felt especially by several new units in availing working capital facilities, we have represented at proper forums that the SSI units being priority sector deserve special consideration in getting working capital sanctions.

(Summary of the speech delivered at 22nd Annual General Meeting of the Corporation on 26th June, 1982 at Ahmedabad. This is not a part of the proceedings of the said meeting).



GUJARAT STATE FINANCIAL CORPORATION
Jaldarshan Building, Ashram Road,
Ahmedabad 380 009.



Two decades of IDCOL

IDCOL AT A GLANCE

Capital Investment

AUTHORISED CAPITAL	Rs. 50 crores
Share capital	Rs. 22.46 crores
Government loan	Rs. 16.68 crores.
Retained profit	Rs. 10.01 crores
Depreciation ploughed back	Rs. 18.77 crores
	<hr/>
	Rs. 67.92 crores

Undertakings & Projects

Operating units under direct management	Nine
Subsidiary companies	Two
Operating units assisted	Three
Joint sector units	Three
Expansion projects	Four
New projects under implementation	Eight
New projects under finalisation	Four
Total capital invested so far	Rs. 380 million
Total capital proposed to be invested	Rs. 2,295 million
Present direct employment	3,900
Direct employment potential	10,515

Products Old & New

EXISTING RANGE: Pig iron, portland cement, low carbon ferro chrome, roofing tiles, transmission line towers and substation structures, aluminium conductors and winding wires, mild steel rods, erection and starting of H.T. transmission lines, jute and hessian, chemicals, common salt and beer.

PRODUCTS TO COME: Aluminium wire and rods, cotton textile yarn, ductile spun pipes, boiler piping and accessories, refractory bricks, textile machinery, slag cement, professional grade magnetic tape, electronic connectors, semi coke, continuous welding consumables.



The Ferro Chrome Plant at Jaipur Road.

IDCOL in the economy of Orissa

THE Industrial Development Corporation of Orissa or IDCOL as the acronym goes was founded in the early 60s, 1962 to be exact. It was a period when Orissa had very few industries worth the name. One small paper mill, a sugar mill, a rerolling mill, a glass factory, a textile mill, a refractory unit were all that was there. Needless to say that the environment then for industrial growth was the least propitious for local entrepreneurs to start ventures on their own. Nor was the climate favourable for outside industrialists to venture into a state that had no infrastructure for industrial development worth the name. Communications were extremely poor, the rail-

way network barely touched the fringe of a fairly large sized state that had great forest and mineral wealth in the interior.

To all accounts, it was a legacy of the State's feudal past. Orissa became a new state only in 1935, and there were over two dozens of feudatory states most of whom had been least concerned for the development of their territories or the welfare of their subjects. The feudal past lingered on for a considerable time after independence, and when Orissa launched its first Five-Year Plan it was one of the most economically backward states with the lowest per capita income of any state in India.

Little wonder then that there

was not much of an entrepreneurial class within the state, 80 to 90 per cent of the people lived in abject and degrading poverty. The government, even if had wished to launch industrial ventures, was held back by all sorts of constraints, financial in the first place. But sooner or later it had to break the ice.

State-owned organisation

A state-owned organisation that would overcome the entrepreneurial deficiency and at the same time mobilise sufficient resources — to start and own industrial ventures seemed the only logical step to take and the Industrial Development Corporation of Orissa, was born. Per-

haps it was the first state institution in the country representing the joint role of a catalyst and a promoter of the industrial undertakings at the same time. The corporation has been playing both the roles well, but eventually it has emerged as the owner of a conglomerate of industries producing a variety of goods ranging from pig iron to ferrochrome, from cement to cables, from a host of engineering goods to roof tiles.

New industrial undertakings

As the Industrial Development Corporation was building up its assets in the form of new industrial undertakings, many other industrial ventures with substantial Central investment as well as private capital have come on the scene. Paper mills, a large cement factory, a ferro-manganese plant, ferrosilicon and calcium carbide plants, a chemical factory, a heavy machinery factory have come up in what should be called the private sector. The Central Government has invested in the large Rourkela Steel Plant, an aero-engine factory on the southern side of the State. A unit of Rare Earths

has come up in the meanwhile. Of late, the Central Government has decided to locate India's largest aluminium complex in Orissa and a phosphate fertiliser plant in Paradip.

If the pronouncements of various authorities at the Central and State level are to be taken at face value, another gigantic steel project which will be eventually larger in size and capacity than Rourkela Steel Plant will come up in the State in the near future. However, amidst all these, the role of the Industrial Development Corporation as the promoter of industrial growth stands out quite clearly.

Industrial history

In fact it would be quite correct to say that the history of Orissa's industrialisation is largely the history of the Industrial Development Corporation of Orissa.

The corporation was set up with an authorised capital of Rs 50 crores, but the share capital as on April 1, 1981 stood at Rs 22.46 crores. However, the total capital investment stood at Rs 67.92 crores, as shown in Table 1.

Table 1: Capital investment
Rs crores

Share capital	22.46
Government loan	16.68
Retained Profit	10.01
Depreciation ploughed back	18.77
	<hr/> Rs 67.92

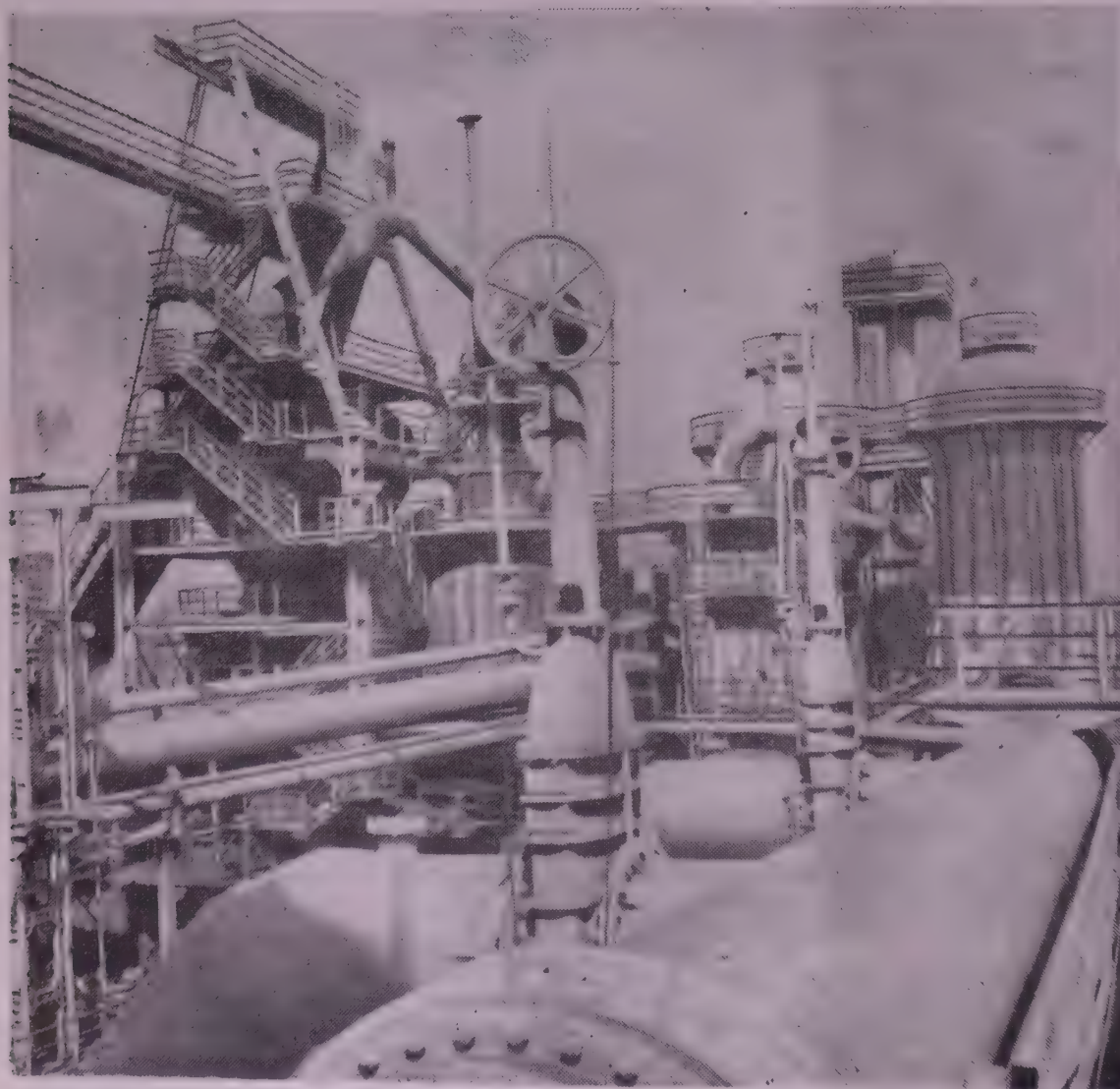
The corporation's turnover today is above Rs 55 crores and promises to grow at a steady pace.

The contribution of corporation to the economy of Orissa can be judged from the State's income by industrial origin, sector by sector: the mining manufacturing and small project sector contributed Rs 53.59 crores to the State's national income in 1960-61, just the year when the Industrial Development Corporation came into existence. By 1976-77, the latest year for which data are available, income from the industrial sector had moved up to Rs 83.38 crores. There is no doubt that a large part of this increase would be on account of IDCOL's contribution to this income. One cannot but commend the steady progress which has been achieved over 20 years mainly through its own effort. It is some measure of its success, that out of a total capital investment of Rs 67.92 crores, some Rs 28.78 crores have been ploughed back out of depreciation provisions and retained earnings. Indeed, the conclusion is irresistible that had Orissa developed its industrial infrastructure side by side, the progress of IDCOL would have been faster.

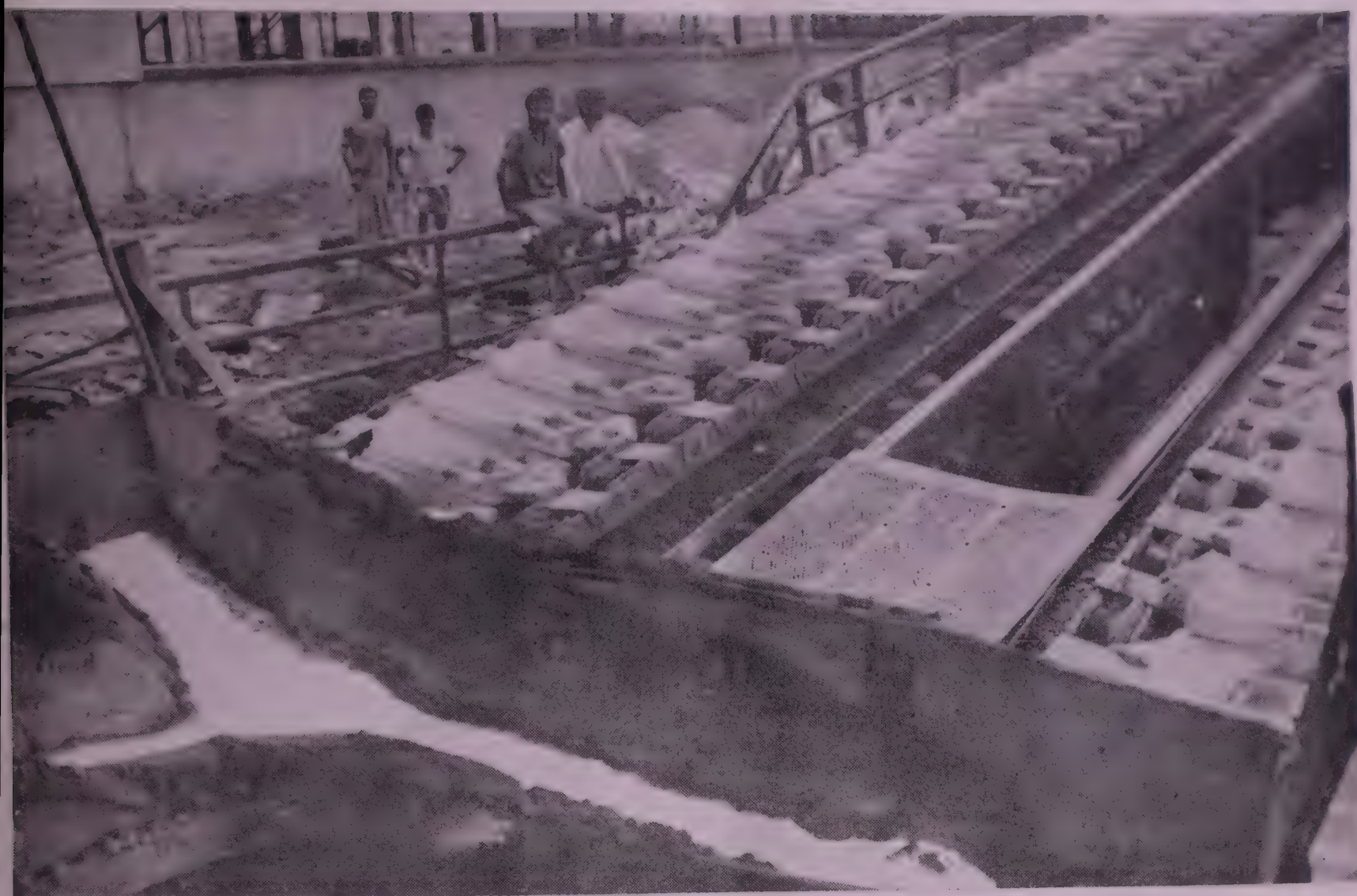
Shortage of electricity

It was a sorry sight to see that a highly sophisticated and profitable plant like the ferrochrome unit at Jajpur Road remaining completely shut down due to the absence of electricity ever since the Orissa State Electricity Board cut power supply by 60 per cent a couple of months ago.

This plant was one of the corporation's highly profitable units during the past year, and would have remained so but for the forced shut-down. The corporation has also been the victim of the Central Government's liberal import policy, especially in pig iron imports. The flood of imports arriving at a time when all consuming industries were in the throes of a demand recession compounded by a severe credit squeeze has so upset production planning at Kalinga Iron Works that the management may have soon to decide whether it can operate all the three furnaces or only one of them.



Low shaft furnace of Kalinga Iron Works.



Pig iron at shipper bay.

Environmental constraints

The above two instances illustrate environmental constraints against which the Industrial Development Corporation has to cope with every now and again. The diversified character of the structure has been a blessing and has helped the corporation to keep its head above water when external factors threaten to upset its balance. But, clearly, the diversification is not strong enough to face rough weather at all times and further diversification, even plantwise, where possible is called for. The present management of the corporation deserves to be commended for being farsighted in planning for expansion and growth at a fairly steady rate. The Government of Orissa which is determined to push ahead with its rapid industrialisation programme should give Industrial Development Corporation a real helping hand.

As the accompanying Table 2 will show the government and its agencies in the State have been playing a leading role in industrial development and that position is going to remain as far as one can foresee.

Table 2 : Investment in paid up capital

(Rs. in crores)

Year	Orissa			INDIA		National Total	
	Govt.	non-Govt	Total	Govt.	non-Govt.	Govt.	Orissa's Share
1950-51	—	9.83	9.83	26.3	749.1	775.4	1.25
1963-69	29.90	22.80	45.70	1714.9	2146.4	3860.3	1.18
1973-74	30.40	25.60	56.00	4645.1	2542.2	7187.3	0.77
1974-75	37.90	25.50	63.40	4966.0	2630.1	7597.1	0.83
1978-79	49.6	31.0	80.6	8315.2	3562.9	11878.1	0.67
1979-80	55.3	31.0	86.3	9753.3	3658.3	13411.6	0.64

Source : Annual Administration Report of the working of the Companies Act, Department of Company Affairs.

Table 3 : Particulars of turnover and profit unitwise (IDCOL)

(Rs. In Lakhs.)

Sl. No. (1)	Name of the Units. (2)	1979-80		1980-81		1981-82	
		Turnover (3)	Profit (4)	Turnover (5)	Profit (6)	Turnover (7)	Profit (8)
1.	Hirakud Industrial Works	146.27	(—)3.34	153.78	2.24	236.37	14.37
2.	Kalinga Iron Works.	1,375.62	159.43	1,035.10	64.02	1,048.60	78.21
3.	Choudwar Tile Factory.	9.52	(—)3.41	12.56	(—)4.63	8.23	(—)12.57
4.	Hira Cable Works.	612.44	58.57	641.82	57.06	630.83	31.33
5.	Hira Cement Works.	1,640.52	83.42	1,736.71	7.50	1,886.06	31.95
6.	Re-Rolling Mill.	427.12	25.70	332.79	46.52	692.68	102.01
7.	Ferro-chrome Plant.	467.21	1.16	836.23	208.47	962.23	170.33
8.	Project Construction Organisation	—	—	—	—	17.31	(—)2.80
Total		4,678.70	321.53	4,748.99	381.18	5,482.31	412.38

Two decades of IDCOL

THE Industrial Development Corporation of Orissa is just completing two decades of its existence. If an organisation's work is to be judged by its performance and contribution to the economy of the State as well as the country as a whole, the corporation emerges with a creditable record.

The corporation has grown out of an engineering factory which it took over from Hirakud development authorities at its start in 1962. The next take-over was of Kalinga Iron Works at Barbil, considerably more ambitious than the first one. The total capital investment involved in the case of Kalinga was Rs 8.79 crores. The Hirakud Industrial Works had an initial capital investment of Rs 1.15 crores.

The other ventures that followed in succession were the tile factory at Chowdwar, a cable factory making aluminium conductors and winding wires, a rerolling mill at Hirakud making MS rounds, a cement works and a ferro-chrome factory. The last two are the corporation's major undertakings almost

on par with Kalinga Iron Works and have capital investments of comparable proportions—of Rs 10.23 crores (in the case of Hira Cement Works) and Rs 7.75 crores for the ferro-chrome plant at Jaipur Road. There is also a Project Construction Organisation in the IDCOL group meant to erect transmission towers.

Subsidiaries

These are all directly managed ventures. The IDCOL has also several other companies falling into two categories—subsidiaries and joint sector projects. Konarak Jute which is manufacturing D.W. tarpaulines and sackings, Orichem at Talcher making sodium dichromate and sodium sulphate and NICCO Orissa, Baripada, just set up to manufacture PVC cables, are typical of the joint sector projects with which the corporation has been associated. East Coast Salt and Chemical Industries Ltd of Somand, set up to manufacture edible salt is a subsidiary. (Please see interview with Mr S. K. Lall, chairman and managing director, for an explanation of

the need to set up subsidiaries and why it has become necessary increasingly to go in for joint sector ventures.)

The corporation has already several expansion or new projects

Table 1: Earnings of IDC for last ten years

Year	Net Profit (Rs. in Lakhs)
1972-73	(—) 112.55
1973-74	(—) 90.25
1974-75	94.95
1975-76	131.98
1976-77	(—) 21.57
1977-78	(—) 17.84
1978-79	(—) 12.62
1979-80	321.53
1980-81	381.18
1981-82 (Pre-actual)	412.83
1982-83 (Budget)	431.72

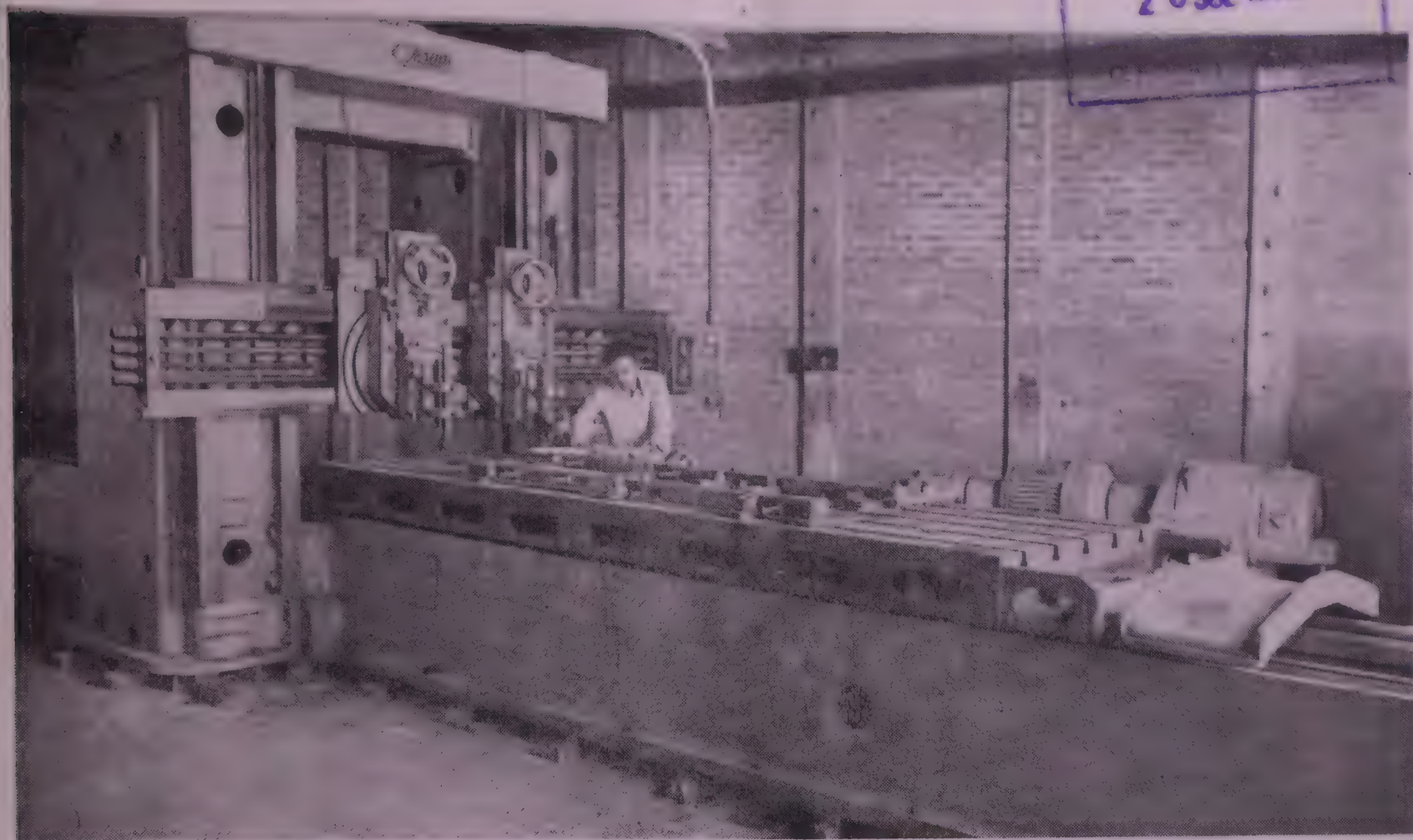
in hand. These are a properzi mill at Hirakud to make aluminium rods, a spun pipe mill at Barbil to make grey ductile iron spun pipes, a slag cement mill at the existing Hira Cement Works with an additional capacity that will make the cement plant one of the largest in India.

Units directly managed by IDCOL

Units and production capacity per annum.	Capital Investment Rs. in crores.	Employment (Nos.) Direct	Date of commissioning
(1)	(2)	(3)	(4)
Hirakud Industrial Works, Hirakud Engineering Industry.	1.15	479	Taken over 1962
Kalinga Iron Works, Barbil Pig Iron	8.79	911	Taken over 1963
Tile Factory, Choudwar. Roofing Tiles	0.30	166	June, 1966
Hira Cable Works, Hirakud, Aluminium Conductors, 3,000 M.T. } Winding Wires. 660 M.T. }	2.50	352	November, 1967
Re-Rolling Mill, Hirakud. M.S. Rounds	1.26	277	June, 1968
Hira Cement Works, Bar, garh. Portland Cement	10.23	985	February, 1968
Ferro Chrome Plant, Jajpur Road, Low Carbon Ferro Chrome	7.74	643	November, 1969
Project Construction Organisation Bhubaneswar. Erection of Transmission Tower	—	32	April, 1977

Subsidiary and joint sector projects

Project & production capacity per annum.	Capital cost of the project Rs. in crores.	IDC's investment Rs. in crores	Date of commissioning
(1)	(2)	(3)	(4)
East Coast Salt & Chemical Industries Ltd., Sumandi Edible Salt	0.50	0.20	January, 1967
Konarak Jute Ltd., Dhanmandal. DW Tarpaulines	8.02	0.90	February, 1979
Sackings.	4.75	0.29	July, 1982
Orichem Limited, Talcher. Sodium Dichromate	10.60	1.14	March, 1983
Sodium Sulphate			
NICCO Orissa Ltd., Baripada XLPE			
PVC Cable			



A section of the workshop of Hirakud Industrial Works.

These activities are impressive but they do not give full details of all the efforts that this dynamic organisation has been making to branch out into as many fields as possible. The most interesting project in hand is to manufacture textile machinery in Bhubaneswar in collaboration with a well-known firm of textile machinery makers of Bombay, the Star group. There are projects to make electronic connectors, professional grade magnetic tapes, special electrodes and refractories. One more spinning mill is being planned in the southern district of Ganjam, a mini cement plant in Sundergarh district, paper mills at Kesinga, a large cement plant in Koraput and a semi coke plant at Talcher. All these projects would involve a total capital cost of Rs 177.13 crores, and would have an employment potential of about 6,000 people. The corporation already employs over 6,000 men and with this new ventures materialising, promises to become a large employer of industrial labour of the State. Leaving the two gigantic Central projects of aluminium and steel out of account, the Industrial Development Corporation of Orissa

is the largest employer of labour in the State today.

Exports

The corporation has exported aluminium conductors to Thailand and the Philippines, ferro chrome to Japan, Australia, the Philippines, the Netherlands, North Korea, South Korea, Rumania and Italy; foundry grade pig iron to Yugoslavia, Rumania, North Korea, Japan and Bangladesh.

Foreign exchange earned by these exports to date totals Rs 22 crores. This adds a bright feather to its cap.

Table II : Value of production (IDCOL)

Year	Value (Rs. in lakhs)
1972-73	1,318.18
1973-74	1,561.22
1974-75	2,348.33
1975-76	2,911.70
1976-77	2,951.83
1977-78	3,032.80
1978-79	3,127.04
1979-80	3,956.98
1980-81	4,765.01
1981-82 (Pre-actual)	5,740.56
1982-83 (Budget)	7,070.33

Table III : IDCOL's contribution to Central and state exchequers for last ten years
(Rs. in lakhs.)

Year	Excise Duty	Sales Tax	Electri- city duty	Mining Royalty & Cess	Total
1972-73	155.31	47.77	16.38	4.64	224.10
1973-74	165.18	48.90	15.88	5.39	235.35
1974-75	233.52	58.50	24.60	4.72	321.34
1975-76	347.97	59.42	30.54	13.71	451.64
1976-77	351.33	78.48	34.87	14.38	479.06
1977-78	354.19	88.83	49.38	21.13	513.53
1978-79	328.05	150.01	54.36	19.00	551.42
1979-80	386.21	216.87	65.78	19.47	688.33
1980-81	431.98	229.59	104.21	28.96	794.74
1981-82	484.37	258.45	118.02	46.26	907.10

A strategy for development

THE Industrial Development Corporation of Orissa after having attained maturity and sufficient credibility as an industrial organisation, is now branching out into newer and newer fields. It has many expansion and diversification projects in respect of existing units. There are schemes to make altogether new products as well.

It needs to be clarified that the corporation's expansion or development programme is fully in tune with the overall objectives of rapid industrialisation of the present ministry in Orissa. The plans for growth have the distinctive feature that as far as possible they are based on local resources and needs,

which is the essence of real development anywhere.

All the corporation's plans and projects are cleared with the State Government and its appropriate scrutinising agencies before they are taken up for implementation. Not only has this the merit of avoiding duplication but helps the government to fulfil its commitments.

Instrument of industrialisation

Thus the corporation through its activities has become an instrument of industrialisation of Orissa, as such deserves and, in fact, has been getting, the full support of the J. B. Patnaik Ministry.

The corporation of course has to rely entirely on its own resources for growth and has, therefore, to be careful in the selection of projects so that they do not end up as bad investments. The answers of Mr S. K. Lall, chairman and managing director, to our questionnaire which follow, stress the care with which schemes are processed before they are taken up, and a thorough study of the market is undertaken before a project is launched.

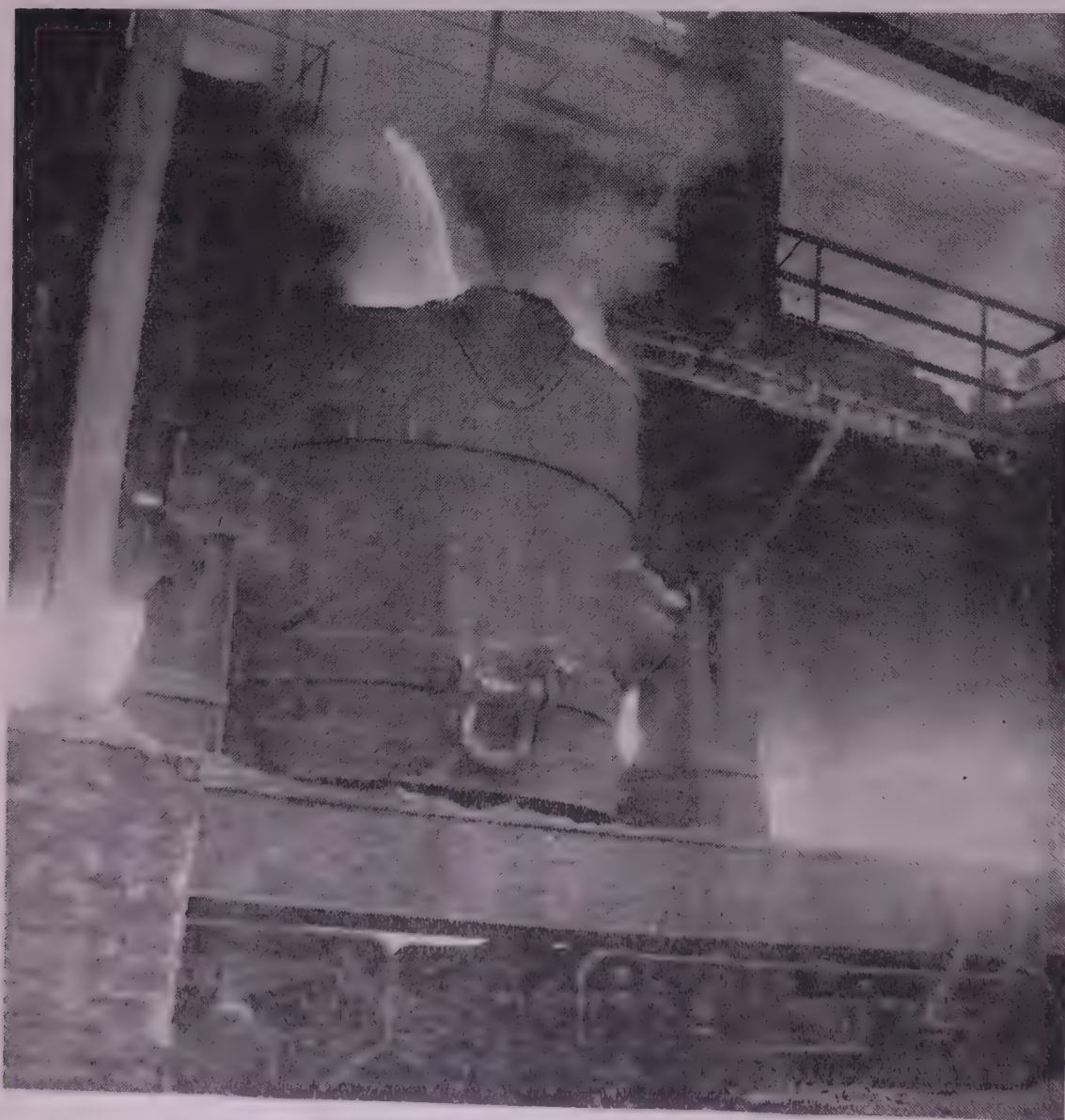
For example, the textile machinery unit being set up as a joint venture with West German technical collaboration will strengthen the State's feeble engineering base. So with the boiler piping and accessories unit. The electronic connectors are a 20th century industry that is necessary for balanced industrial development anywhere. Even the two spinning units to which a third one is being added are a necessity, for they serve the needs of the State's numerous weavers who have a problem in finding good quality yarn. It is also a measure of necessary diversification for the corporation.

The Kalinga Iron Works diversification is being tackled quite imaginatively. The expansion plan is designed to make the future of this major undertaking secure and at the same time bridge an obvious technological gap between the iron works and an allied unit like the sophisticated ferro chrome plant. Between pig iron and ferro chrome, there should be another product to link the two to derive further economic benefits.

The corporation has plans for an alloy steel venture into which ferro chrome will go and thus help further the value creation process.

Perspective plan

Mr Lall has talked of a perspective plan for the current decade which is under preparation. A perspective plan is a must for a growing and dynamic organisation. Most



The molten metal section of Kalinga Iron Works.



Pig iron stock at Kalinga Iron Works.

of the products it is manufacturing are bound to have a bigger market in the years to come. Capacity must be built up side by side to reap the benefits of rising demand or a wider market in proper time.

However, despite the most careful management of its assets the corporation has run into difficulties from time to time entirely because of factors which lie outside its control. For example a drastic power cut by the State Electricity Board has forced the management to shut down its profitable ferro-chrome plant. Other problems for this plant may arise in the future due to unplanned licensing of new capacity. At the moment there are only two such plants in India but more will come up when new licences are implemented. Judging from the manner in which demand for ferro-chrome has been estimated—it varies between 38,000 tonnes per year to 17,000 tonnes per year by 1983—there may soon be a phenomenon of overcapacity in this industry. Since the industry will be a mix of private and public sector

enterprises, the consequences may well be bad for those who stick to the path of honest and scrupulous management.

Expansion/New project already taken up

Name of the Industry, Location & Products		Capital cost Rs. in crores	Employment potential direct & indirect	Target date of production.
(1)		(2)	(3)	(4)
1. Properzi Mill, Hirakud	6,000 M.T./Annum.	1.32	66	March, 1982
2. Spun Pipe Plant, Barbil.	36,000 M.T. of Grey Ductile Iron Spun Pipe	5.23	637 G I	March, 1982
3. Slag Cement Mill (Expansion of Hira Cement Works, Bargarh).	Additional Capacity Slag Cement 1,69,000 M.T. per annum.	9.30	116 D.I.	December, 1982 May, 1983
4. Sonapur Spinning Mills Ltd., Sonapur	25,000 Spindles	7.81	1000	September, 1982
5. Baripada Spinning Mill, Baripada.	25,000 Spindles	8.66	1000	December, 1982
6. Boiler Piping & Accessories Works, BBSR	Fabrication and bending of Carbon & Alloy Steel Seamless Pipes bends, tees, Elbows Reducers etc. Elbow	3.84	222	December 1982

Serious market problem

Another example of the corporation becoming a victim of other people's mismanagement is provided

ed by unnecessary pig iron imports. Misled by highly exaggerated demand estimates the Central authorities concerned have permitted im-

ports of pig iron far in excess of what the gap could have been. Some of the exporters like China have offered their material at prices which are indistinguishable from dumping.

Consequently, the Kalinga Iron Works which had a run of prosperity for three years in a row, is now facing a serious market problem. It is not able to sell its products the foundry grade pig iron, that was said to be in acute short supply only a few months ago, has overnight become plentifully available and Kalinga Iron is unable to sell its output even after shutting down one of its furnaces. In fact one saw piles of unsold stocks in the works' yards. At this rate the plant as a whole would sooner or later be choked.

Of course the management has an imaginative diversification programme to make Kalinga a multi-product company and thereby make the base more secure. Kalinga's example underscores the point that there should be plant wise diversification in most cases, if not all.

New projects at planning stage under implementation

1. Textile machinery manufacturing unit, Bhubaneswar.
2. Electronic Connectors, Bhubaneswar.
3. Professional Grade Magnetic Tape, Chandaka, Bhubaneswar.
4. Special Electrodes, Bhubaneswar.
5. Aska Spinning Mill, Aska Ganjam.
6. Mini Cement Plant, Sundargarh District.
7. Semi Coke Plant, Talcher.
8. Cement Plant in Koraput District.
9. Paper Mills, Kesinga.
10. Refractory Unit, Choudwar.

*Total capital investment proposed

: Rs. 177.14 crores

*Total employment potential

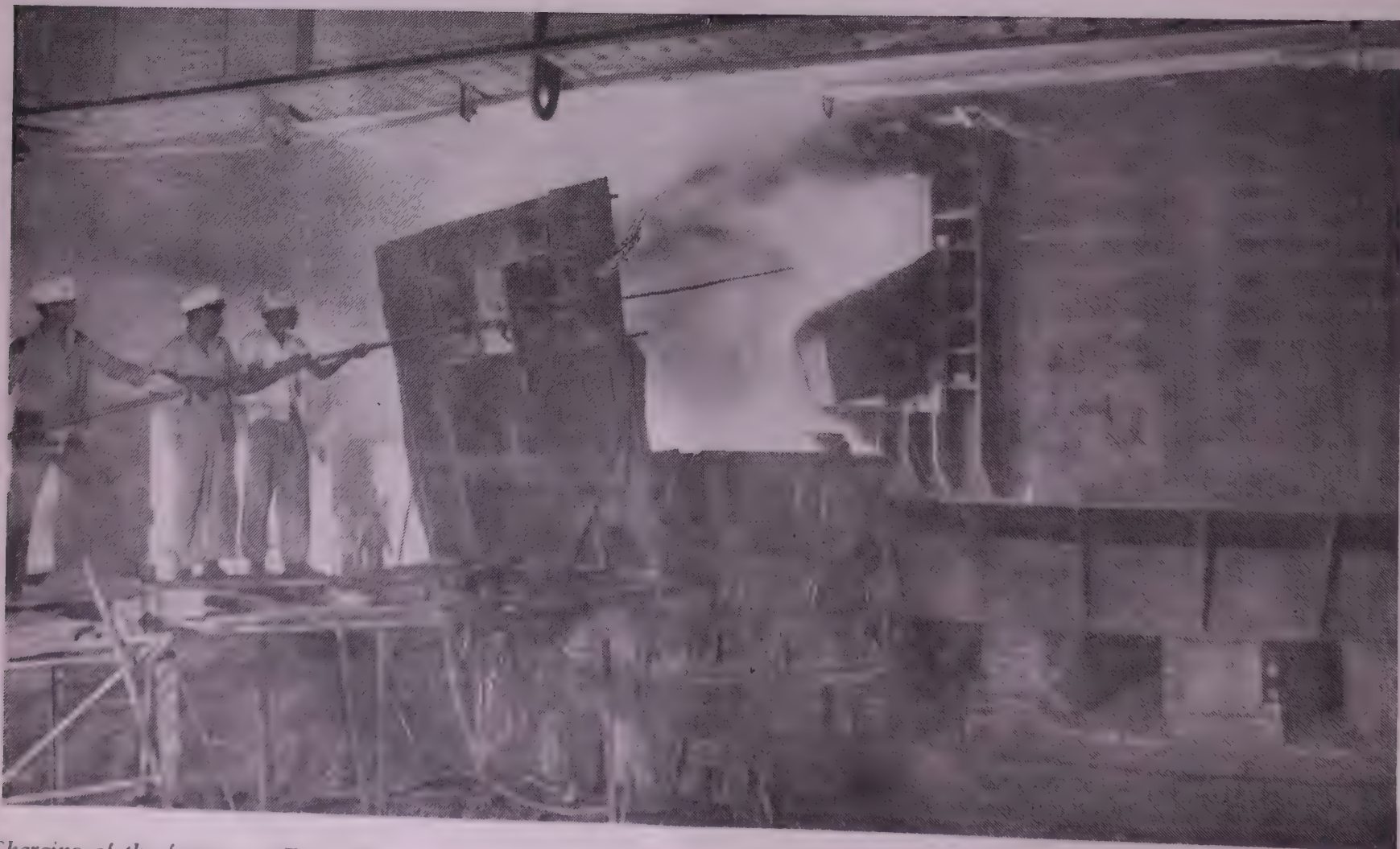
: Rs. 5,800 Nos.

8. IDCOL'S Programme for Chandaka Nucleus Complex

IDCOL has taken up an ambitious plan of setting up the following Industrial units in the Chandaka Nucleus Complex :

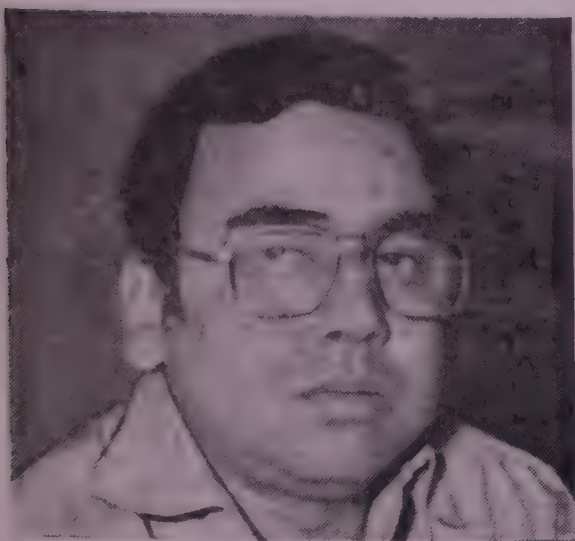
	Project cost
1. Boiler Piping & Accessories Works.	Rs. 3.5 crores
2. Textile Machinery Manufacturing Unit	Rs. 5.4 crores
3. Electronic Connectors.	Rs. 5.4 crores
4. Professional Grade Magnetic Tape.	Rs. 4.5 crores
5. Special Electrodes.	Rs. 3.5 crores
	<u>Rs. 22.30 crores</u>

*Total Direct & Indirect employment potential : 2500 numbers.



Charging of the furnace at Ferro Chrome Plant at Jaipur Road.

Towards a better capital-output ratio



Mr S. K. Lall

Commerce: *How do your expansion and development plans fit into the present Ministry's plans for industrialisation in the State?*

Lall: All our expansion programmes and development of new projects fit into the present Ministry's priorities in respect of industrialisation of the State. The identified projects including the expansions are discussed in great detail with the State Government from time to time. All new investments take place only after obtaining the State Government's approval. Not only our programmes serve as effective tools for Government's current drive for industrialisation, the State Government and the Corporation also keep in view the broad strategy and the priorities of the Government of India in the matter of industrialisation.

Commerce: *The role of I.D.C. is both of a catalyst and an instrument of industrial promotion. How does it combine its functions of a catalyst and an agency of development without sacrificing some of its basic interests?*

Lall: It is true that IDCOL is both a catalyst as well as an instrument of industrial promotion. Basically, there is no conflict in combining functions of a catalyst and the management of units directly under its own supervision and control. However, it would be proper to point out that IDCOL's functions as a catalyst these days are deliberately kept to very limited projects since the substantial role in this re-

THE Chairman and Managing Director of the Industrial Development Corporation of Orissa, Mr S. K. Lall answers the *Commerce* questionnaire with the assurance of a chief executive who knows what he is talking about. A senior member of the Indian Administrative Service, Mr Lall has for the most part of his career been associated with governmental activities concerning industry and investment except for a brief period when he served the Government of India as a Joint Secretary, Home.

Mr Lall's stint as Resident Director, Indian Investment Centre, Dusseldorf, West Germany, has given him rare insight into the complicated world of industrial investment and management.

gard is justifiably of IPICOL. And IPICOL is doing an excellent work in this regard. Before the formation of IPICOL, the catalyst role was equally important. But after the formation of IPICOL, only the residual functions have remained and a limited number of new ventures were taken up on grounds of high technology, new product range, etc, needing partnership of some reputed undertakings with good access to new technology. It has so happened that while originally the IDCOL thought of promoting and managing these projects on its own, later on,

by its efficient operations, some private sector houses also want to be associated with this Corporation in new ventures.

Commerce: *In selecting an industrial project, what are the broad criteria followed and what is the procedure for finally adopting and implementing a project?*

Lall: The selection of an industrial project goes through a very elaborate process of checking and re-checking on various parameters. The main objective behind such project identification is to have high return on the capital employed, which, in turn, requires the corporation to examine very closely and in depth the market for the product. The identification of projects relies heavily these days on high and sophisticated technology, relative uniqueness of the project in the country, its general contribution towards development of the industrial base within the State, possibility of ancillarisation and provision of employment. All these aspects are kept in mind for preliminary scrutiny of the project. After identifying a specific project, discussions are held with prominent consultants and project report preparation is entrusted to such consultants after due care. The consultants are also asked to help, wherever necessary, in preparation of application for letters of intent to the Government of India and such applications are filed.

After the letter of intent is received and the project report is

INTERVIEW

due to various investment and technological reasons, it was found that joint ventures with some good private undertakings might be more preferable in the over-all interest of the project.

Since IDCOL requires constant exposure to various professional management techniques in order to imbibe and improve its own professionalism in management, association in a limited number of joint ventures greatly helps. No new joint ventures or joint sector proposals are taken up by IDCOL, which will hinder its own interest. On the other hand, these associations help indirectly in its own operations. As a result of IDCOL establishing its credibility in the industrial sector

ready, the same is examined in depth by the professional group consisting of technical and financial officers at senior level in the corporation. There are occasions when number of discussions have to take place with the consultants and all necessary data checked and indicated in the project report. Thereafter, the project report analysis is prepared and the matter is taken to IDCOL board of directors for their examination and approval. After the approval of the board of directors, the project is forwarded to the State Government along with a detailed memorandum for approval by the project approval board (PAB) of the State Government, presided over by the chief secretary. In case a particular project is approved by the PAB, an intimation is received from the State Government. Thereafter, the project implementation is taken up. For project implementation, a new organisation for the specific project is set up, which takes up all aspects of the implementation, including ob-

taining loan from the financing institutions.

Commerce : *In case of a joint venture who normally takes initiative and on what principles are private promoters chosen?*

Lall : In the case of joint ventures, the IDCOL takes initiative of attracting private promoters and they are selected strictly on the basis of their net worth and reputation. The main consideration is that the private organisation should have access to good managerial techniques, good technology and a record of good performance nationally. The IDCOL's own selection for partners has been very selective in nature and a thorough investigation is done about the capabilities of the private promoters.

Commerce : *How is a subsidiary different from a company directly managed by the IDC?*

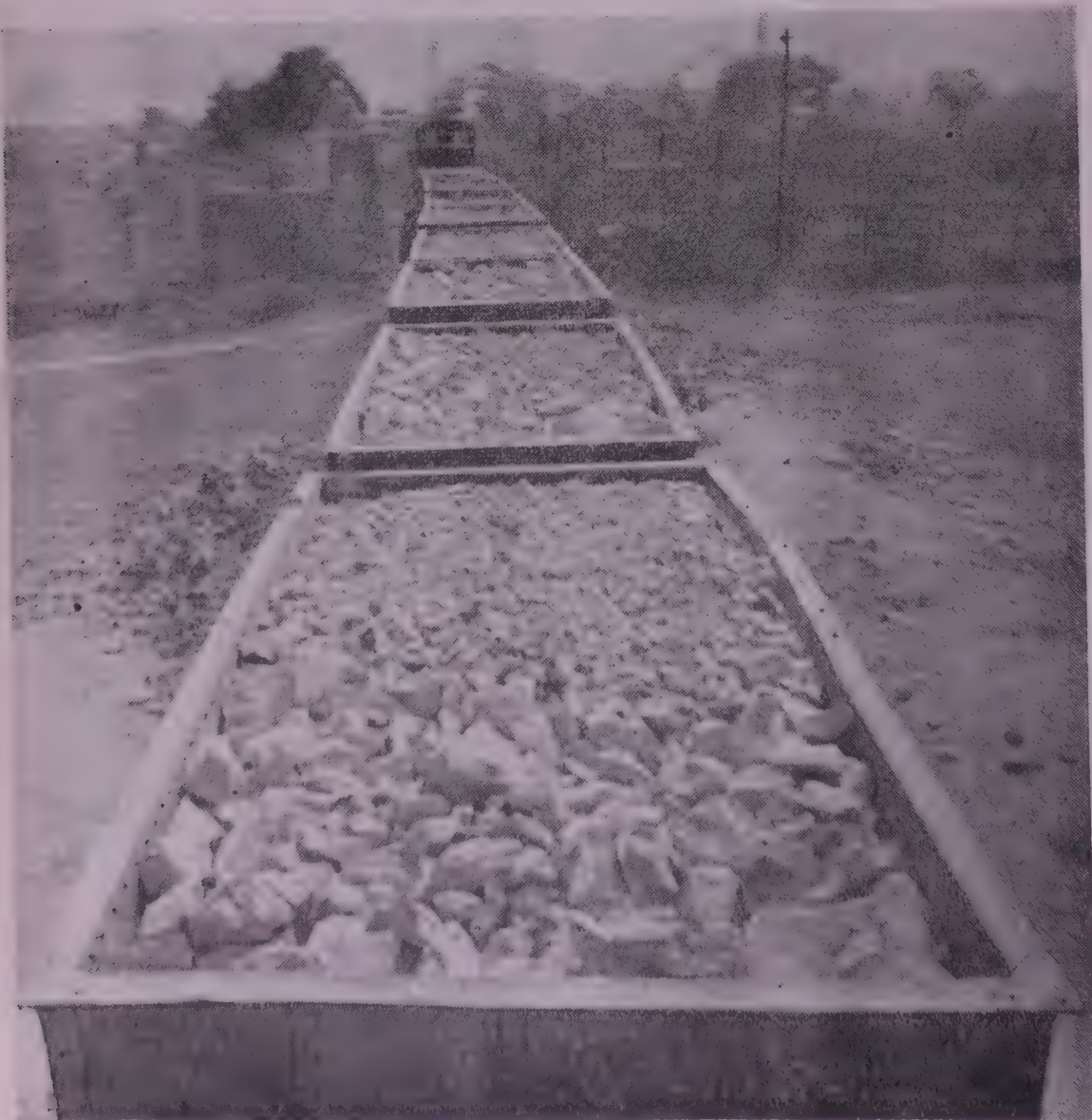
Lall : A subsidiary company is one, in which the parent company

has more than 51 per cent share. IDCOL has two wholly owned subsidiaries. The subsidiaries were set up to manage specific projects on the basis of the principle that a separate corporate set-up with more autonomy would be helpful in advancing the specific project. It was also thought that subsidiary companies would be able to obtain loans from the financing institutions, as the latter normally insist for a separate corporate set-up for different projects.

Substantially, these subsidiary companies, except for the separate corporate set-up, are not different from the units directly managed by IDCOL. The general strategy of IDCOL is to set up new units directly under its own control rather than subsidiary companies, unless it is specifically so desired by the financing institutions. This greatly helps in financial management and tax planning. A separate corporate set-up through a subsidiary company necessarily involves separate balance-sheet for the subsidiary company to be published under the Companies Act. In the case of directly managed units, while the accounts are strictly separate for each unit, they are merged later for preparation of the annual report and the balance-sheet of the Corporation.

In our view, there is no specific advantage in managing different units through subsidiary companies. From the point of view of effective control, project monitoring, financial management, personnel management, and over-all organisational development, a manufacturing unit directly operating under the board of IDCOL is definitely more advantageous. But at times, other perceptions, equally valid from other angles, particularly of financial institutions do come into play, and under those circumstances, subsidiary companies may have to be set up. It must, however, be stated to the credit of the financing institutions that they have appreciated our viewpoint and have allowed us the facility of setting up projects, as distinct units, directly under the control and supervision of this corporation.

Commerce : *It appears that the IDC is more or less a conglomerate of industrial units without any deliberate pattern of growth. In fact the growth of the corporation has proceeded on haphazard lines in the past. Now that the policy is to adopt a more purposeful pattern of growth, what are the schemes you have been considering to expand the*



Limestone, the basic raw material for cement, is being hauled from the quarry into Hira Cement Works.

IDC's activities on more modern or profitable lines?

Lall: It will not be correct to say that IDCOL so far has grown in a haphazard manner. The very fact that IDCOL is a conglomerate consisting of several productive units producing diverse items would go to show a definite design and a definite strategy based on the need for exploitation of mineral and other resources, need of the market, need to provide employment to local people along with growth, contribution towards development of engineering bases, etc. The other main objective has been to develop professional management skills locally to provide for supply of good managers and skilled man-power within the State. These objectives have been achieved to the extent of the industries implemented and brought into operation profitably.

The current expansion phase is again based on a similar strategy and that is how IDCOL is entering into newer fields. The decision to implement three cotton spinning mills of 25,000 spindles each is based on the strategy that thousands of weavers, who require good quality yarn, should be provided with necessary raw material not only to keep them fully employed but also to expand their base. On the other hand, agricultural sector will get the necessary impetus to diversify its crop pattern to grow cotton, which can give better return to the farmers. Vast tracts of suitable soil for cotton will thus have a profitable utilisation.

For Orissa to make further strides, the engineering base has



Cement being loaded into wagons at Hira Cement Works.

to further expand rapidly. With this end in view, the IDCOL has taken up a project to manufacture textile machinery in collaboration with a leading textile machinery manufacturer, viz the Star group of Bombay led by Mr Suresh Mehta. Similarly, this corporation is also setting up a unit to fabricate boiler piping and accessories, which will fill in a big gap in the capacity within the country. The project identification efforts are on for identification of more machinery manufacturing oriented projects and other engineering products. With the natural growth of industries, it is essential to have good quality welding consumables, which are not being manufactured in the country. This project is going to be taken up in collaboration with another leading Indian manufacturer with appropriate know-how.

The development of electronic industries and its components also is high priority area to provide leading edge to Orissa for rapid industrial growth. This corporation is concentrating on core electronic projects requiring heavy investment, so that many ancillaries based on the same would come up. The corporation has planned to set up a factory to manufacture professional grade magnetic tapes, which are not being manufactured in the country at the

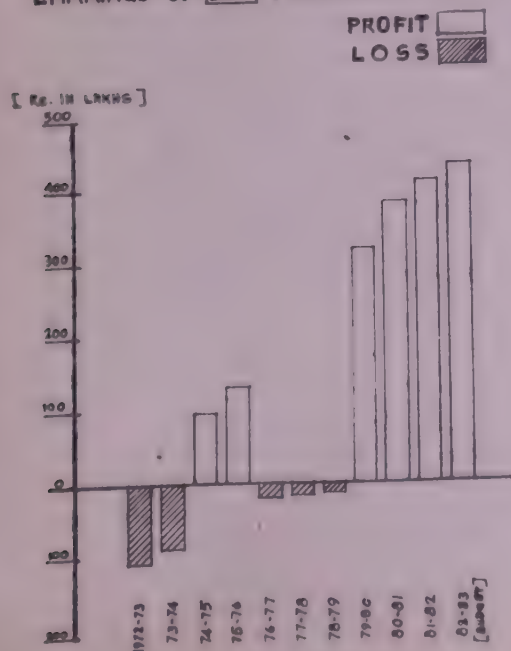
moment. Necessary foreign collaboration, etc, is virtually tied up.

On similar strategy, the development of refractory industries, implementation of projects based on pig iron, which the corporation already produces, and diversification of AAC and ACSR conductors factory is being thought of. While these new projects will add new dimensions to the corporation, the other vital strategy of the corporation is to concentrate further on expansion of capacities of the existing industries. Already steps have been taken to implement expansion of cement manufacturing in the existing unit of IDCOL by another 1,65,000 tonnes per annum. Similarly, the re-rolling mill is being geared up to achieve a capacity of 40,000 tonnes annually from 15,000 tonnes now. The range of ACSR conductor is being expanded to manufacture extra high voltage conductors.

Our structural workshop is gearing itself to manufacture extra high tension transmission towers. These will be all based on modern technology and with a view to increasing the cash surplus substantially for further new investments in the times to come.

Commerce: Your units are scattered practically all over the State? How does top management exercise its control?

EARNINGS OF IDC FOR LAST TEN YEARS

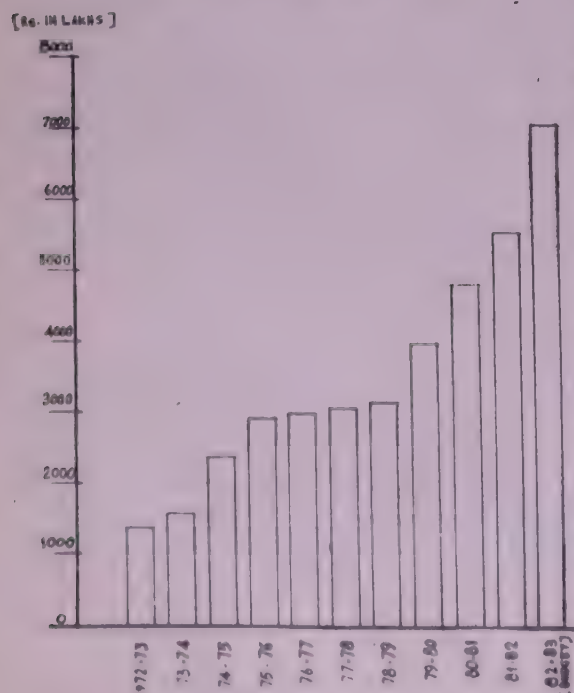


Lall: The units of IDCOL are scattered practically all over the State, because of the fact that we wanted to bring the benefits of industrial growth in different areas of the State. The control and supervision of the top management at the corporate level is exercised on a very scientific basis. The most important device for control, supervision and performance analysis is the device of annual budget broken up into quarterly budget. The budget is prepared very carefully and approved at the beginning of the year. The annual budget is prepared after elaborate discussion with the heads of the units, in which detailed performance analysis on each and every aspect of each unit is done and the annual forecasts made. The reports of previous performances are presented to the board of directors for detailed discussions.

The annual budget similarly is placed before the board for its approval. The budget fixes specific targets relating to production, sale and capacity utilisation in respect of each unit and then the figures are consolidated for the entire corporation. Thereafter, the budget indicates the 'EXPENSES' required for performance indicating clear ceilings in respect of raw materials, salary and wages, power and fuel, stores and spares, packing materials, selling and distribution expenses, railway freight, corporate office expenses, other miscellaneous expenses and contingencies.

The other segment of the annual

VALUE OF PRODUCTION OF IDCOL
FOR LAST TEN YEARS



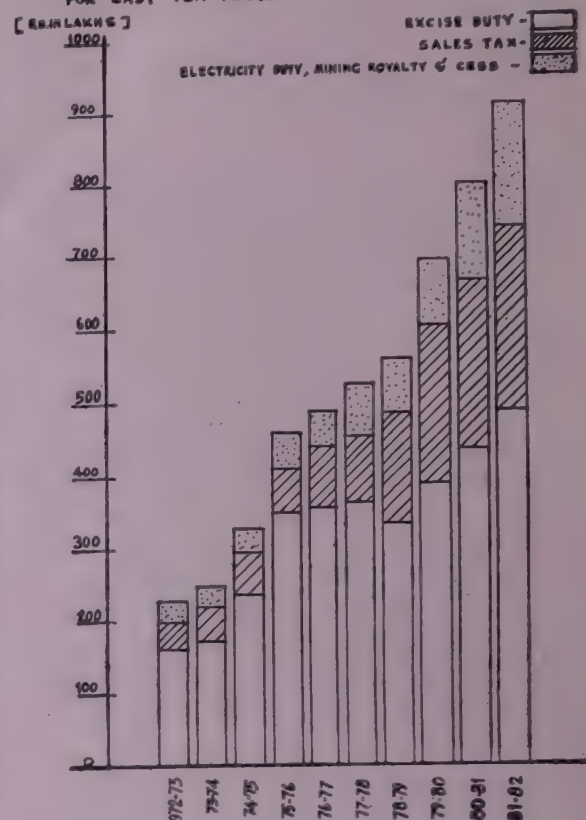
budget consists of payment of various interest on loans, depreciation, etc. The figures of gross and net profits are thus set for each unit and then integrated for the corporation. Thereafter, an annual cash flow statement is prepared, in which inflow and outflow are indicated. An annual capital budget is also prepared for expenditure on capital items. All these elements are reviewed and evaluated every month and every quarter and full surveillance is maintained on day to day basis practically by the corporate office.

There is a very good management information system, which keeps the corporate office informed every day of all the important features of the business like raw materials consumption, production achieved, cash and other financial position, man-power utilisation, energy consumption, etc. The system provides for daily information from different units in a capsule form, backed by weekly and monthly cost analysis and performance analysis. The entire management structure is based on delegation of powers and decentralisation of management with the general managers without sacrificing in any manner the need for control and supervision in areas, where it is essential, from the corporate level.

To back up this management information system, the units are linked not only by telephones, but also by teleprinters and are being strengthened with telexes, etc. The communication systems with Calcutta and Delhi also are maintained on an efficient level. The monitoring of market conditions is done simultaneously at the unit and the corporate office level and fuel interaction is ensured between the corporate office and the unit office with regard to sales strategy of different products. As a result of new expanding activities of the corporation, an exercise to further tone up the management information system, the cost control system and necessity to restructure the organisation at various levels, has been taken up with the help of the consultancy services of the Indian Institute of Public Administration (IIPA). The IIPA has already made a complete study of our operations and is likely to submit its suggestions for improvement of the management practices and the organisational structure shortly.

Commerce: Have you been able to

IDCOL'S CONTRIBUTION TO CENTRAL & STATE EXCHEQUERS
FOR LAST TEN YEARS

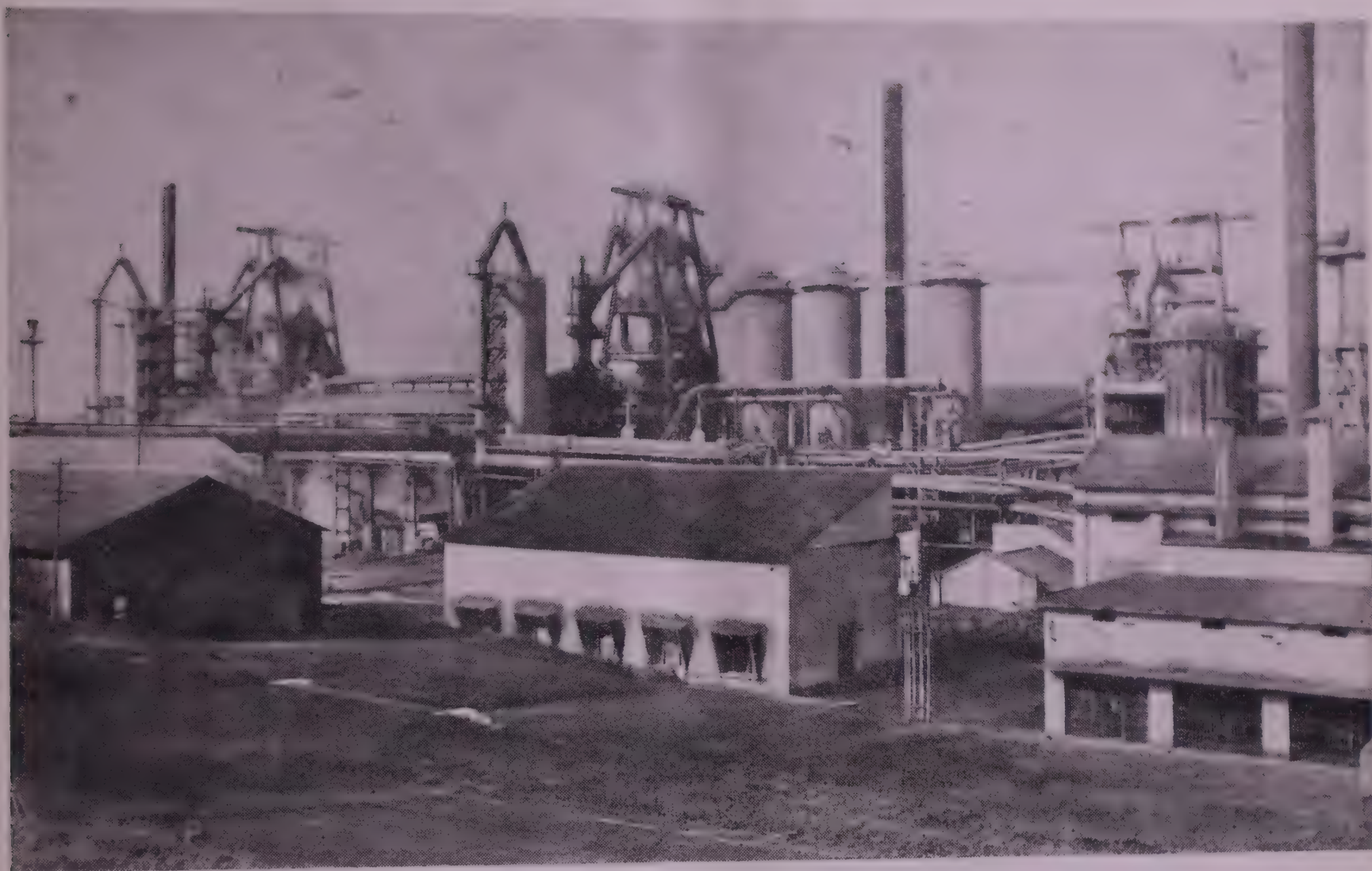


streamline the management system for all the units which are not only different in size, but are disparate in character?

Lall: The information given earlier will also cover this question. While the management system in vogue now is sufficiently streamlined, we are always alert to new requirements of the business and, therefore, are constantly adjusting our management system with expert advice to achieve our objectives, keeping in view the diverse nature of our project and products.

Commerce: Among units run by the IDC which are the most profitable and which are the least? What do you propose to do about toning up the operations of the latter units?

Lall: Currently, the most profitable units are Hira Cement Works and ferro-chrome plant. But this is true during the current financial year. During the last two years our most profitable units were Kalinga Iron Works, the ferro-chrome plant, re-rolling mill, and Hira Cable Works. Hira Cement Works was only marginally profitable. After the liberalisation of cement distribution and pricing policy by the Government of India, this unit has become profitable. The other units are currently facing a recessionary trend in the market. We are conscious that toning up of the operation to meet the market conditions is a constant exercise. We have in fact strengthened the marketing strategy



A full view of Kalinga Iron Works.

of the units now facing the recessionary trend and have further strengthened the management set-up.

The steps to tone up the operations are manifold and are both short-term and long-term. For example, Kalinga Iron Works which produces pig iron, runs into various problems with regard to inputs availability and market conditions. While at times the market provides good return for the product, at other times, the sales suddenly decline due to imports and increased availability of the product from the integrated steel plants. Among the inputs, the most critical item is the B.P. hard coke. It has been our experience that availability of B.P. hard coke suffers at the time of need and when market requires quick out turn.

Among the steps that we are taking is to produce formed coke and try out in our low shaft furnaces with the help of the Research & Development Wing of SAIL. The project is under negotiation and when it is finalised, it will provide a good ground for reducing our dependence on the B.P. hard coke. Of

course, it will very much depend upon how our low shaft furnaces are able to tolerate the formed coke. From the discussions that we have had with the R & D authorities of SAIL, the available parameters do indicate that success is possible.

Earlier, in order to reduce the coke consumption, we had actively participated in the R & D work of SAIL for charging lime into the low shaft furnaces. The experiment was carried out over a long period and it was established that the furnaces behave much better with the lime charging and considerably reduce the coke consumption, thereby reducing the cost. It is a matter of great satisfaction that on the basis of experiment undertaken in Kalinga Iron Works, the R & D of SAIL are now going to implement the same in the blast furnaces of the integrated steel plants. Furthermore, sintering of iron ore is another area, where considerable amount of research and development has been made with the help of Regional Research Laboratory, Bhubaneswar.

Here also we have found that the sintered material adds to the productivity of the plant. The

management of IDCOL is very alive to the needs of the research and development and by a process of prudent choice, takes up all possible measures to improve its operations from time to time. In fact, many years ago, when nut coke was not being utilised by the steel plants for their own blast furnaces, we perfected its use in our low shaft furnaces, as a result of which, even the steel plants have started using the same now in their blast furnaces.

As regards the market limitations, we have noticed that during the time of depression, our products have to be sold at a loss. Since basically the vagaries of the market are unpredictable at times, the management took a bold step of utilising hot metal for manufacturing spun pipes. The spun pipe is a value added product and has good market. In order to reduce our dependence on merely pig iron market, we have already installed and commissioned grey iron spun pipe manufacturing with an annual capacity of 36,000 tonnes. Around December, 1982, we expect to manufacture a new metal viz. ductile iron in our induction furnaces and make ductile iron

spun pipes in the spun pipe factory, adjacent to KIW. Considerable investment has already been made for this new product line and we can hope to reduce our dependence on pig iron market from the next year to the extent of 40 per cent.

It would be relevant to mention here, as to how the management's thinking process on providing more flexibility to profitable operations is taking shape. This corporation produces ferro-chrome, which is an important ferro-alloy for the manufacture of special steel, specially stainless steel. At the other end of this spectrum is the production of pig iron, which is the first product for making steel. The effort is now on to close this gap between pig iron and ferro-chrome by taking up products, which will go in to manufacture mild steel and special steel, depending on the availability of the resources in times to come. A new corporate plan for a decade is being prepared with a view to take account of all these aspects.

Commerce: *Coming back to your role as a catalyst, it would be interesting to know what type of assistance are you in a position to offer or you have been offering to entrepreneurs within the State and outside?*

Lall: Reverting back to our role as a catalyst, we offer our specialised management services for development of new joint ventures within the State. Financially we confine ourselves merely to equity participation. Equity is the main financial contribution. As regards other services, we give full assistance in obtaining industrial licence, C.G. clearance, foreign collaboration approval and other follow-up assistance to the entrepreneurs, so that the projects are implemented in time.

Commerce: *If an attempt is made to draw up a balance sheet of IDC's achievements from the social costs and benefits point view, what should figure on the credit side?*

Lall: As regards our performance related to social costs and

benefits, we would certainly figure very high on the credit side with regard to absorption of high technology, creation of vast employment opportunities for the local people, creation of large services sector supporting the industrialisation, provision of very progressive labour welfare measures, development of highly professional managerial cadre within the State, organisational orientation towards research and development, high level of quality consciousness, development of economic infrastructure, creation of some basic industrial base for further growth in the State, several backward and forward linkages in the economy, bringing Orissa to national market for various products and the like. The capital-output ratio is very satisfactory. Due to surpluses being generated from time to time, a movement to build up industrial assets quickly and providing gainful benefits in various fields has gathered momentum.

Commerce: *Judging from the performance of the corporation for the past three or four years the capital-output ratio has obviously improved? How has this come about? What is being done to maintain and improve the trend?*

Lall: The improvement in the capital-output ratio during the past few years has been possible to be achieved by comprehensive reorientation of the management system. This has been as a result of very vigorous and active efforts to procure raw materials for various products at economic rates in time, better marketing strategy, effective cost control, effective pricing techniques, maintenance of high quality, and the improved personnel system. The combination of progressive rise in wages in tune with the inflation, combined with progressive incentives policy related with productivity has brought forth higher productivity.

All efforts are being made not only to sustain the improved performance, but also to increase the level of performance with the aid of high motivational factors for workers as well as for managers. The systems are devised to take care of both adverse and better times. The product diversification and constant improvement in the organisational and managerial structures will help us in achieving a greater and still better capital-output ratio.



A scene at Choudwar Tile Factory.

IDCOL—PROGRAMME OF INDUSTRIALISATION

IN step with the Orissa Government's drive to attract more and more industries to the State, the Industrial Development Corporation of Orissa (IDCOL), which already has about a dozen companies under its ownership, is branching out into newer and newer fields, some under its own banner and some as joint sector ventures. The following shows the latest position of its industrialisation programme:

	Nos.		
A.	Operating units under direct management	8	
B.	Subsidiary companies of Idcol	2	
C.	Operating units assisted by Idcol	3	
		TOTAL CAPITAL COST	EMPLOYMENT POTENTIAL
		Rs. in lakhs.	(Direct) in nos.
D.	Joint sector units	Rs. 2,337.00	2,126
E.	Expansion projects	Rs. 1,642.00	944
F.	New projects under implementation	Rs. 5,046.00	4,082
G.	New projects under finalisation	Rs. 13,932.00	3,363
		<u>Rs. 22,957.00</u>	<u>10,515</u>

(A)	OPERATING UNITS UNDER DIRECT MANAGEMENT	PRODUCTION CAPACITY PER YEAR
1.	Kalinga Iron Works, Barbil	1,00,000 MT of pig iron
2.	Hira Cement Works, Bargarh.	3,96,000 MT of portland cement
3.	Ferro Chrome Plant, Jaipur Road.	10,000 MT of low carbon ferro chrome
4.	Tile Factory, Choudwar.	24,00,000 Nos. of roofing tiles
5.	Hirakud Industrial Works, Hirakud.	6,000 MT of transmission line towers and sub-station structures.
6.	Hira Cable Works, Hirakud.	3,000 MT of aluminium conductors and 660 MT of aluminium and copper winding wires & strips.
7.	Re-Rolling Mill, Hirakud.	15,000 MT of mild steel rounds and tor-steel.
8.	Project Construction Organisation, Bhubaneswar.	Erection & stringing of transmission line towers.
(B)	SUBSIDIARY COMPANIES OF IDCOL :	
1.	East Coast Salt & Chemical Industries Ltd., Sumandi, Ganjam.	10,000 tonnes of edible & industrial grade salt.
2.	Sonepur Spinning Mills Ltd., Sonepur, Balangir.	Cotton yarn 3503378 KG.(at 95% capacity) upto 40 counts
(C)	OPERATING UNITS ASSISTED BY IDCOL :	
1.	East Coast Breweries & Distilleries Ltd., Paradeep (Cuttack)	
2.	Aska Co-operative Sugar Industries Ltd., Aska (Ganjam)	
3.	Jayashree Chemicals Ltd., Chatrapur (Ganjam)	

INDUSTRIAL UNITS UNDER JOINT SECTOR (Position upto April, 1982)

Sl. No.	Name of the industry	Location	Capital cost Rs. in lakhs	Sources of finance	Production capacity per annum	Employment potential. No. of persons	Target date of production.	Entrepreneurs/ collaborator.
1.	2.	3.	4.	5.	6.	7.	8.	9.
1.	Konarak Jute Ltd.	Dhanmandal, Cuttack.	802	Own 1.5 % Collaborator 12.0% Public & Term loan 75.5%	DW tarpauline 2462 tonnes, sacking — 10,778 tonnes.	1,600	Production started Feb. '79.	NAFED New Delhi
2.	Orichem Ltd.	Talcher Dhenkanal.	475	Own 8.5% Collaborator 8.5% Public & Term loan 83 %	Sodium dichromate 3300 MT. Sodium sulphate 1520 MT.	316	July '82	J.K. Jhunjhunwala & Co. Pvt. Ltd. as collaborator
3.	Nicco-Orissa Ltd.	Baripada, Mayurbhanj	1060	Own 8.76% Collaborator 8.0% Public & Term loan 83.24%	700 KM PVC and XLPE cable.	210	March '83	Nicco India Ltd. as collaborator.
			2,337			2,126		

EXPANSION SCHEMES UNDER IMPLEMENTATION IN SIXTH PLAN (Position upto April, 1982)

Sl. No.	Name of the industry	Location	Capital cost Rs. in lakhs	Source of finance	Products	Employment potential No. of persons	Target date of production
1.	2.	3.	4.	5.	6.	7.	8.
1.	Properzi Mill	Hirakud Sambalpur	132	Own 34 % Loan 66 %	Aluminium rod 6000 MT/Annum	66	Commercial production started in March, 1982.
2.	Spun Pipe Plant	Matkambada (Barbil) Keonjhar	523	Own 100%	36,000 MT of G.I. & D.I. spun pipes	637	-do-
3.	Refractory Unit	Choudwar Cuttack.	57	Own 15.95 lakhs Loan 47.55 lakhs	Refractory bricks 4000 MT per annum.	125	March, 1983
4.	Slag Cement Mill (Expansion of Hira cement works)	Bargarh Sambalpur	930	Own 20 % Loan 80 %	Additional capacity slag cement 1,69,000 MT. per annum over the present capacity of 3,96,000 tonnes of Portland Cement	116	May, 1983
			1,642			944	

NEW PROJECTS UNDER IMPLEMENTATION IN SIXTH PLAN PERIOD

Sl. No.	Name of the Industry	Location	Capital cost Rs. in lakhs	Source of finance	Production	Employment potential No. of persons	Target date of production
1.	2.	3.	4.	5.	6.	7.	8.
1.	Sonepur Spinning Mills Ltd.	Sonepur, Dist. Bolangir	781.05	Own 40% Term Loan 60%	Cotton Yarn upto 40 counts 3503378 kg. (at 95% capacity)	1000 has already been started Temporary	September 1982.
2.	Baripada Spinning Mill	Baripada Mayurbhanj	866	Own 40% Loan 60%	Cotton yarn 3240290 kgs. (at 95% capacity) up to 40 counts.	1000	Dec. '82
3.	Boiler Piping & Accessories Works.	Chandaka, Bhubaneswar. Puri.	384	Own 48% Loan 52%	Fabrication and bending of Carbon & Alloy Steel Seamless pipes, bends tees Elbows Reducers etc.	222	Dec. 82
4.	Textile Machinery Manufacturing Unit	Chandaka Bhubaneswar Puri	540	Own 11% Joint partner 29% Public subscription and loan 60%	Ist Phase Ring spinning frames 600 Nos. IInd Phase Draw frames 600 Nos. Speed frames 250 Nos.	—	—
5.	Electronic Connectors	Chandaka, Bhubaneswar, Puri.	540	Own 25% Loan 75%	Electronic connectors million Nos. per annum.	1.5 367	—
6.	Professional Grade Magnetic Tape	Chandaka, Bhubaneswar, Puri.	450	Own 25% Loan 75%	450 million RM professional grade Magnetic tape (Computer tape, Audio professional tape etc.)	106	—
7.	Aska Spinning Mill	Aska, Ganjam.	755	Own 33% Loan 67%	Cotton yarn 3564550 kgs. (at 95% capacity) up to 40 counts.	1000	Dec. '83
8.	Mini Cement Plant	Sundergarh District	730	Own 17% Joint sector partner Loan 66 2/3%	66,000 MTP. Yr. Portland cement. 16 1/3%	387	July '84
			5,046			4,082	

NEW PROJECTS UNDER FINALISATION

Sl. No.	Name of the industry	Location	Capital cost Rs. in lakhs	Source of finance	Production	Employment potential No. of persons	Target date of production
1.	2.	3.	4.	5.	6.	7.	8.
1.	Semi Coke Plant	Talcher Dist. Dhenkanal.	1,400	Own 33% Loan 67%	Semi-coke 1 lakh MT per annum.	450	—
2.	Special Electrodes	Bhubaneswar Dist. Puri	350	Own 11% Private sector loan through prospectus from public—49%	5,000 tonnes of continuous electrodes plus 2,000 tonnes of fluxes. Partner 40%	225	—
3.	Cement Plant	Korapur Dist.	12,000	Own 20% Loan 80%	One or two million tonnes per annum portland cement	2,500 in 1st phase	—
			13,750			3,175	



External desulphurisation of pig iron at Kalinga Iron Works — an important R & D project.

BOOKS & IDEAS

Panoramic view of Indian economy

Problems of Economic Development in the Third World (with special reference to India)

by K.N. Prasad

Interling Publishers Pvt. Ltd., AB/9
Afadarjang Enclave, New Delhi-110 029,
1980; Pp X 458; Price not stated.

Dr Prasad of Patna University is one of the few scholars in the country who combines within him the high calibre of a theoretical analyst of the economics of underdevelopment and the due concern to offer an empirical presentation of the nature of underdevelopment. Commendably enough, in a sharp departure from many Indian writers in the English language for whom India does not seem to exist, Dr Prasad's concern is, in the best tradition of Karl Marx, the Indian economy — the economy in which he lives. The two scholarly volumes on the economy of Bihar, which Dr Prasad produced in the late sixties, remain unsurpassed till today in the field of the study of state economies in this country in their scope and presentation.

"The essays projected in this volume are concerned with the middle level of analysis between pure and formal developmental theory and detailed empirical studies of specific problems", the author explains in the preface. There are twenty essays covering a wide area of economic discussions: Implications of economic growth in underdeveloped countries, a critical survey of the balanced versus unbalanced growth, objectives of Indian five-year plans, social overhead capital *versus* directly productive activities, poverty and inequality in India, the 20-point programme, contra-inflationary policy in the Indian plans, land reforms, rural industrialisation, growth centres and so on. The majority of the essays in this volume expectedly concern India, while the others represent a summary of the views of the leading economic writers of the western countries on the process of economic development. The author

would have done well to examine the theories against the course of economic development in India during the past three decades of planning. This was not possible because the articles were written in the course of a period stretching over twenty-five years till 1975.

The economic diversification — industrialisation — of the underdeveloped countries will be facilitated if "the efforts of the underdeveloped countries would be concentrated far more than at present on tackling the problem of how to raise the productivity of land as a prior condition of industrial development", Dr Prasad writes (p8) in the very first essay in the volume. This theme runs throughout, in the discussion of other specific aspects as well. "If only our arable land could employ 122 hands per 100 hectares by the year 2000 (whereas at present only 92 persons are employed per 100 hectares) as against Egypt's 181, Japan's 219 in 1971, Indonesia's 224, South Korea's 261, Nepal's 229, Vietnam's 242, 214 million of our people would secure employment in agriculture itself. The existing data suggest that in India for 1 per cent increase in yield per acre, labour input rises between 0.5 and 0.75 per cent. If the yield per acre is doubled, employment can conceivably go up by 50 per cent. A 15 per cent rise in agricultural employment will be sufficient to offset India's population explosion in the 1970s."

I must say that I do not like the author's use of the term "population explosion" which represents the unthinking use of the slogan raised by the selfish economists and politicians of the western countries, who sense the only challenge to the continued exploitation and domination of the west in this numerical strength and thus harp on this theme. Many of the European countries support a much larger population per square kilometre without possessing a fraction of India's natural resources. All these years their industries have been fed by the resources and manpower of the developing countries. Now also they depend on the

non-European manpower which they deplore and denounce. It is a pity that our economists join in that slogan-mongering without realising that the condemnation of the population growth is self-condemnation which cuts into a nation's self-confidence. Only a large population can develop the available resources for the national benefit, if a country is not to depend on slave labour or indentured labour. The West Asian labour is 60 per cent Indian and these Indian workers are employed at wages which the university professors and other intellectual workers in India dream to receive in India. Thus the manpower is not useless. If economic planners and administrators in India cannot utilise this manpower, that does not entitle them to denounce the people.

There is no agreed definition to identify "population explosion" with any particular rate of growth of population. At any rate the rate of population growth in India is well below that rate. If the current policies and actions of the Indian society, suffering under the crushing burden of inequality and widespread exploitation, has not succeeded in providing for the modest rate of growth of population, that is another matter. The utter inadequacy of the economic policy to cope with the economic problems has been noted by Dr Prasad: "A recent study shows that while the average labour intensity of the private corporate sector in India has declined, industries with lower-than-average labour intensity have enjoyed considerably larger relief in tax incidence than industries with higher-than-average labour intensity This means that the corporation tax policy has tended to induce distortions which have favoured the employment of capital, with the result that the labour intensity of industrial output has suffered

All the chapters represent the author's serious and sustained study of the various facts of the Indian economy over the years and are thus rewarding reading.

Subhash Chandra Sarker

CORPORATE SECTOR

In the market

Nishchal Chemicals

Nishchal Chemicals Ltd (Registered Office: 7H, Ajanta Apartments, 10 Gurusaday Road, Calcutta-700 019) is offering for public subscription at par 1.55 lakh equity shares of Rs 10 totalling Rs 15.50 lakhs. The subscription list will open on July 12 and will close on July 22 or earlier but not before July 15. The company was incorporated as a public limited company in February 1982 to carry on the business of trading in chemicals.

Other developments

NOCIL: Debenture issue proposed

The working of National Organic Chemical Industries Ltd (NOCIL) was adversely affected due to the two-month plant shutdown, frequent power failures and difficult trading conditions. As a result the production of ethylene during January-May period was lower at 21,000 tonnes as against 28,000 tonnes during the corresponding period last year, realising lower sales of Rs 50 crores, against Rs 59 crores. The profitability was also adversely affected.

The company has already embarked upon a huge diversification programme to manufacture a number of agro-chemicals and fine chemical items at Chiplun in Ratnagiri district of Maharashtra. The first phase of the programme is under implementation and production would commence by the year-end or in the beginning of next year.

Mr Arvind Mafatlal, chairman of NOCIL, said that the company proposes to spend a large sum of Rs 80-100 crores during the next five years on various expansion and diversification schemes. Necessary finance will be met through internal accruals and loans from financial institutions.

NOCIL proposes to issue Rs 12 crores worth of non-convertible debentures on rights basis to the existing shareholders. The said debentures will be issued under the latest government guidelines, carrying 15 per cent interest, redeemable after seven years at a premium of Rs 5.

Colgate Palmolive: Over 100% dividend

Colgate Palmolive (India) Ltd allotted 19,65,000 equity shares of Rs 10 each to members on May 26, 1982 after obtaining the consent of the Controller of Capital Issues for the issue of bonus shares in ratio of 1 for 1. Following the bonus share, the present paid-up equity share capital of the company stands at Rs 3.93 crores and the free reserves at Rs 3.31 crores.

Mr O.E. Senior, chairman of the company, announced a final dividend of Re 0.30 per share (subject to tax) on the company's enhanced paid-up equity share capital, consequent upon the allotment of bonus shares, on 39,30,000 fully paid-up equity shares of Rs 10 each of the company, at its annual general meeting.

Interim dividends of Rs 4.20 and Rs 6.80 per share (subject to tax) were declared on June 2, 1981 and November 16, 1981 respectively, out of the company's 1981 profits.

During 1981, the company registered a sales growth of 15.3 per cent and profit (before tax) growth of 6.3 per cent over 1980. The net profit after taxes was Rs 35.7 crores or 5.3 per cent of sales of Rs 680.4 crores. The company's exports amounted to Rs 32.5 crores including exports of Colgate Dental Cream to the USSR valued at Rs 25.8 crores.

The company's present installed capacity is around 4,500 tonnes for tooth powder and 11,000 tonnes for tooth paste. It is examining the financial viability of setting up a synthetic detergents plant at Udaipur, Rajasthan, and a plant for manufacturing toilet soaps at Ankleshwar, Gujarat.

TELK makes gas circuit breakers

Transformers and Electricals Kerala Ltd (TELK), a public sector undertaking at Angamally, Kerala, has emerged as one of the major companies manufacturing heavy electrical equipments in India. A remarkable achievement of the company is its success in developing and manufacturing the first batch of 400 kv SF 6 gas circuit breakers. TELK is manufacturing these gas circuit breakers in collaboration with Hitachi Ltd, Japan. Compared to the conventional type breakers the gas circuit breakers require no maintenance and are more reliable for large substations

and power stations. TELK has contracted to supply a large number of 400 kv gas circuit breakers to Madhya Pradesh and Maharashtra State Electricity Boards.

According to Mr K.G. Seshaiyer, TELK's managing director, the sophisticated SF6 extra high voltage breaker technology is new in India and it is for the first time that an Indian firm has successfully manufactured and tested 400 kv gas circuit breakers in the country. One more feather to the cap has been added by TELK's achievement in successfully manufacturing India's first generator transformer for the first 500 mw unit of Trombay thermal power station, Bombay. The turbine and generator for the first 500 mw unit to be installed in the country is being supplied by Kraft Werke of West Germany. TELK was selected by Tata Electric Supply Company to supply the generator transformer for their Trombay plant on the basis of international tendering.

TELK has also bagged a Rs 5-crore order from the National Thermal Power Corporation for manufacture, supply and installation of large 400 kv transformers including 315 mva 400/220 kv 3 phase transformers for Hyderabad and Nagarjunasagar stations of Ramagundam super thermal power project of Andhra Pradesh.

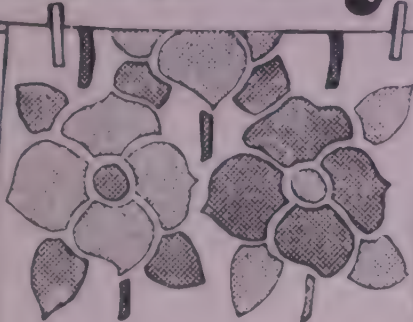
TELK's product range covers high voltage power transformers up to 600 mva/400 kv, current transformers up to 400 kv, potential transformers up to 220 kv, SF6 gas circuit breakers up to 420 kv, minimum oil circuit breakers and oil impregnated paper condensers.

German Remedies to issue bonus shares

Sales for the first five months of 1982 of German Remedies Ltd are more than 20 per cent over the sales for the same period of 1981. The construction and installation of the new chemical plant at Patalganga, district Raigad, would be completed by middle 1983, after which production would commence. The board of directors has recommended to capitalise Rs 122.40 lakhs out of general reserves as at December 31, 1981 and to issue fully paid bonus shares under FERA (Foreign Exchange Regulation Act, 1973) in the ratio of three shares for five shares held.

SAHYADRI DYESTUFFS & CHEMICALS

offer
**Intermediates
and Dyestuffs**



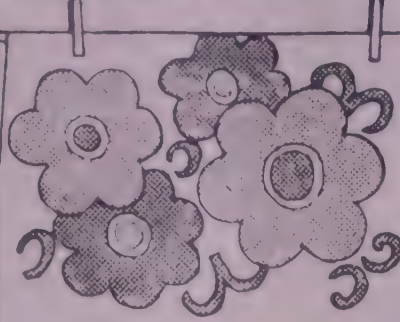
MALACRYL DYESTUFFS

ranging from
Yellow to Black

for added confidence
in dyeing and printing
on acrylic fibres

- high colour value
- good build-up
- good solubility

INK BLUE

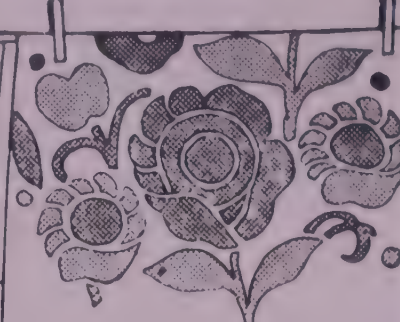


BASIC DYESTUFFS

- Auramine O
- Malachite Green
- Methyl Violet 2B
- Rhodamine B

PURIFIED BASES

- Rhodamine B
- Methyl Violet 2B



ALCOHOL SOLUBLES

- Auramine OF
- Rhodamine B

INTERMEDIATES

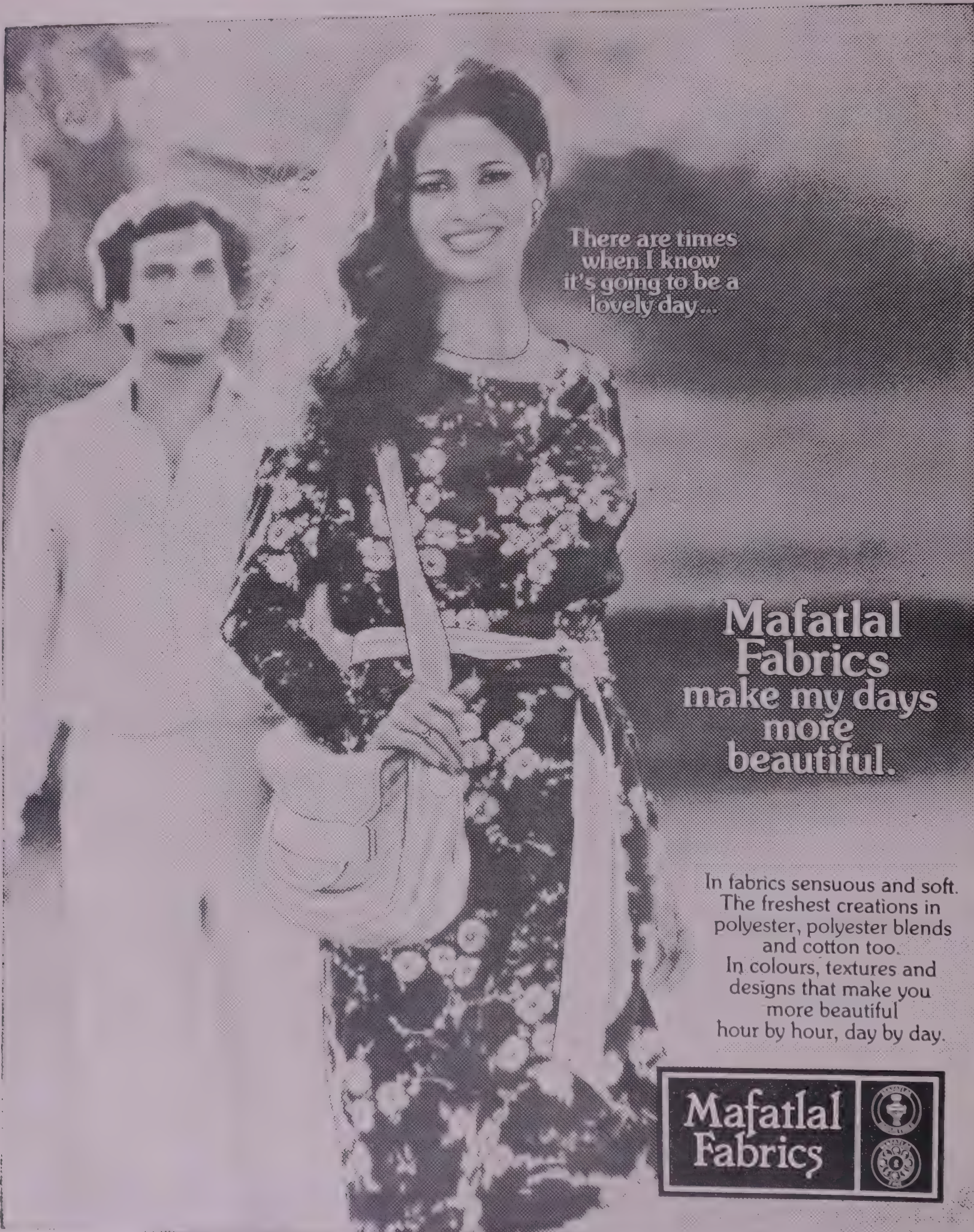
- N,N-Dimethylaniline
- Diethyl meta amino phenol
- Resorcinol



SAHYADRI DYESTUFFS & CHEMICALS

DIVISION OF MAFATLAL INDUSTRIES LIMITED
Mafatlal Centre, Nariman Point, Bombay 400 021 (INDIA)
Tel.: 232822 Telex: 11 4240 MGMC IN Cable: SAHARVIND





There are times
when I know
it's going to be a
lovely day...

**Mafatlal
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more
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In fabrics sensuous and soft.
The freshest creations in
polyester, polyester blends
and cotton too.
In colours, textures and
designs that make you
more beautiful
hour by hour, day by day.

**Mafatlal
Fabrics**



Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rupees in lakhs)

Name of company	Colgate-Palmolive (India)		Hindustan Lever		Hindustan Aluminium Corporation		Indian Aluminium Company		Madras Aluminium Company	
Industry Group	Soaps, detergents, etc.		Soaps, detergents, etc.		Aluminium		Aluminium		Aluminium	
Item	Year ended December		Year ended December		Year ended December		Year ended December		Year ended December	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Liabilities (at the end of the year)										
1. Net worth (i+ii)	592.4	724.1	8,432.7	9,696.1	7,386.9	13,568.8	5,857.2	6,016.7	1,081.6	868.5
(i) Paid-up capital (a+b)	196.5	196.5	2,916.1	2,916.4	1,503.7	1,503.7	2,969.9	2,969.9	592.5	592.5
(a) Equity	196.5	196.5	2,916.1	2,916.4	1,004.0	1,004.0	2,969.9	2,969.9	450.0	450.0
(b) Preference	—	—	—	—	499.7	499.7	—	—	142.5	142.5
(ii) Reserves	395.9	527.6	5,516.6	6,978.7	5,883.2	12,065.1	2,887.3	3,046.8	489.1	276.0
2. Borrowings (i+ii)	198.5	198.5	4,848.3	4,179.3	603.6	573.0	2,643.3	4,164.5	1,260.3	1,620.1
(i) Long-term	198.5	198.5	1,130.5	1,069.3	38.0	36.8	1,042.5	1,275.4	479.7	574.2
(ii) Short-term	—	—	2,607.8	3,110.0	565.6	536.2	1,600.8	2,889.1	780.6	1,045.9
3. Non-current liabilities and provisions	—	—	—	—	1,420.2	1,479.1	—	—	25.6	31.5
4. Current liabilities and provisions	863.2	888.4	7,663.1	10,044.8	3,778.9	4,561.4	3,877.5	5,380.6	550.5	658.6
Assets (at the end of the year)										
5. Gross fixed assets	298.6	352.8	9,276.4	10,800.5	13,752.0	21,426.9	11,638.8	12,437.0	3,316.4	3,384.1
6. Less depreciation	106.2	118.8	3,008.4	3,514.8	7,902.1	8,842.3	6,861.6	7,326.1	2,178.9	2,287.8
7. Net fixed assets (5-6)	192.4	234.0	6,268.0	7,285.7	5,849.9	12,584.6	4,777.2	5,110.9	1,137.5	1,096.3
8. Current assets (i+ii+iii)	1,461.7	1,577.0	13,536.8	16,708.7	6,742.1	6,898.8	7,591.6	10,444.8	1,780.5	2,082.4
(i) Inventories	785.3	1,104.3	11,035.4	12,471.9	2,336.4	3,093.1	5,407.7	6,873.0	1,470.6	1,345.0
(ii) Receivables and loans and advances	410.6	405.8	2,397.4	3,908.9	1,929.2	2,359.8	1,752.9	3,390.3	296.0	676.5
(iii) Others	265.8	66.4	104.0	327.9	2,476.5	1,445.9	431.0	181.5	13.9	60.9
9. Other assets	—	—	29.3	25.8	597.6	698.9	9.2	6.1	—	—
Total: Liabilities (1 to 4) or Net assets (7 to 9)	1,654.1	1,811.0	19,834.1	24,020.2	13,189.6	20,182.3	12,378.0	15,561.8	2,918.0	3,178.7
Value of production and other income										
10. Sales/income net of excise duty, discounts and selling commission	4,998.1	5,803.3	40,242.4	47,815.9	8,934.6	11,579.3	10,062.3	13,740.1	2,328.5	2,299.6
11. Increase in stock of finished goods and work in progress	9.8	288.5	834.2	866.2	212.6	18.9	1,031.0	1,879.3	540.3	-74.8
12. Value of production (10+11)	5,007.9	6,091.8	41,076.6	48,682.1	9,147.2	11,598.2	11,093.3	15,619.4	2,868.8	2,224.8
13. Other income	24.4	35.0	67.1	78.2	131.0	169.7	40.9	42.3	22.2	27.6
Expenditure										
14. Materials, stores and other mfg. expenses	3,108.3	3,939.8	31,367.7	36,511.8	7,712.4	9,472.6	6,850.7	10,896.8	2,326.6	1,829.9
15. Current repairs	12.0	21.1	305.5	436.9	119.7	123.0	437.7	557.8	49.9	36.6
16. Salaries and wages	190.7	215.4	1,760.8	2,101.9	675.0	824.2	1,265.3	1,524.6	131.6	142.3
17. Welfare expenses	57.4	65.0	131.9	152.1	106.7	125.6	165.9	205.5	12.6	13.1
18. Managerial remuneration	—	—	0.9	0.7	—	—	0.6	0.6	—	—
19. Other expenses	475.5	630.0	3,467.2	4,338.8	313.8	393.7	879.3	1,076.3	51.9	47.3
20. Depreciation	13.4	16.3	477.9	536.9	923.5	1,182.2	527.3	529.4	114.5	14.8
21. Other provisions	—	—	—	—	—	—	—	—	3.4	5.9
22. Operating profit (12+13)-(14 to 21)	1,175.0	1,239.2	3,631.8	4,681.2	-572.9	-353.4	1,007.4	870.7	200.5	62.5
23. Interest	5.2	—	412.3	555.7	36.0	128.3	206.3	424.8	141.5	274.9
24. Tax provision	865.6	887.9	1,567.0	2,050.0	50.0	110.0	455.0	198.0	—	—
25. Profit after tax (22-23-24)	304.2	351.3	1,652.5	2,075.5	-658.9	-591.7	346.1	247.9	59.0	-21.24
Appropriations										
26. Dividends (i+ii)	198.5	227.9	729.1	729.1	171.2	171.2	445.5	400.9	—	—
(i) Equity	198.5	227.9	729.1	729.1	125.5	125.5	445.5	400.9	—	—
(ii) Preference	—	—	—	—	45.7	45.7	—	—	—	—
27. Profit retained (25-26)	105.7	123.4	923.4	1,346.4	-830.1	-762.9	-99.4	-153.0	59.0	-21.24
Total: Value of production & other income (12+13) or Expenses and appropriations (14 to 22)	5,032.3	6,126.8	41,143.7	48,760.3	9,278.2	11,767.9	11,134.2	15,661.7	2,891.0	2,252.4
Operational indicators (per cent)										
(a) Net worth/total net assets	35.8	40.0	42.5	40.8	56.0	67.2	47.3	38.7	37.1	27.3
(b) Inventories/net sales	15.7	19.0	27.4	26.1	26.2	26.7	53.7	50.0	63.2	58.5
(c) Operating profit/net sales	23.5	21.4	9.0	9.8	—	—	10.0	6.3	8.6	2.7
(d) Operating profit/total net assets	71.0	68.4	18.3	19.5	—	—	8.1	5.6	6.9	2.0
(e) Profit after tax/net worth	51.4	48.5	19.6	21.2	—	—	5.9	4.1	5.5	—
(f) Equity earning/equity capital	154.8	178.8	56.7	71.2	—	—	11.7	8.3	13.1	—
(g) Equity dividend	101.0	113.0	25.0	25.0	12.5	12.5	15.0	13.5	—	—
(h) Equity dividend coverage (No. of times)	1.5	1.6	2.3	2.8	—	—	0.8	0.6	—	—
(i) Paid-up value per equity share (Rs.)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	100.00	100.00
(j) Market price of an equity share (Rs.)	151.00	84.00	45.50	49.00	57.25	30.21	23.00	16.75	88.00	51.00
(k) Gross yield	6.7	13.5	5.5	5.1	2.2	4.1	6.5	8.1	2.9	2.0
(l) Gross fixed assets formation	15.3	18.2	12.1	16.4	1.6	55.8	7.3	6.9	—	—
(m) Debt/equity	0.34:1	0.27:1	0.13:1	0.11:1	0.01:1	—	0.18:1	0.21:1	0.44:1	0.66:1

NOTES: Category not applicable — Amount/Percentage is negligible — Amount is nil N Q Not quoted N A Not available

The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of various items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments are sometimes made in other items also. Totals may not add up due to rounding off.

EQUITIES

THE WEEK'S PRICE RANGE

(Compiled by Commerce Research Bureau)

Speculation halts trading

Bombay, July 2

Trading in the Bombay Stock Exchange was suspended on July 1 because of the excessive trading in Century and TISCO in both official and unofficial business. The Bombay stock Exchange also issued a circular asking the share brokers details of outstanding business of those scrips in form no. 102 by next day. Besides, the members have to file statements of the daily transactions in these two scrips. Those who failed to do so will be penalised. At present the members have to give details about the business in Reliance. This action was taken by the stock exchange authorities because of the recent delivery problems in the share.

The suspension of trading on July 1 came as a major surprise in many quarters. The closure decision was taken by the president Mr Laldas Jamnadas, following a complaint from certain share brokers about excessive trading in these two scrips with a view to extracting higher *undha badla* (backwardation charge). At the last settlement the *undha badla* in Century was as high as Rs 15/—. Apparently the president acted under the powers vested in him by the stock exchange to suspend operations for a day to find out the exact position in any scrip in which there has been excessive trading.

Trading was resumed on July 2 and the market has softened further. Century and TISCO have retreated.

The market is now agog with rumours that Zenith Steel shares may also create problems for Bombay Stock Exchange. At the last settlement the *undha badla* in Zenith Steel was as much of Rs 6/— and bears had resorted to a heavy short-selling to bring down the price. Certain circles connected with Bombay Stock Exchange feel that bulls may be pressurised to reduce *undha badla* to reasonable levels. Such a step, it is felt, would prove an unhappy development because it would amount to condoning heavy short selling, these circles point out.

Earlier during the week's trading Century was marked up sharply from Rs 947 to Rs 985 before closing at Rs 980. Tata Steel hardened from Rs 344 to Rs 357 before reacting to Rs 347. Hindustan Motors was an outstanding feature following the payment of a dividend of 20 per cent after 12 years. Its price shot up by Rs 4.25 to Rs 25.50.

	Closing quotations 26-6-82	High	Low	Closing quotations 3-7-82		Closing quotations 26-6-82	High	Low	Closing quotations 3-7-82
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
'A' group equity shares									
A.C.C. (100)	263.00	293.00	272.00	282.50	Ennore Foundries (10)	38.25	39.00	38.25	38.25
Ashok Leyland (10)	33.00	36.00	33.50	35.00	Escorts (10)	35.50	38.25	36.25	38.25
Ballarpur Ind. (10)	36.50	39.50	37.50	39.50	Ferro Alloys (100)	187.50	195.00	187.50	195.00
Baroda Rayon (100)	358.00	370.00	358.00	365.00	FGP (10)	14.25	14.25	13.50	14.25
Bihar Alloy (10)	11.00	11.75	11.25	11.75	Finlay (100)	82.50*	—	—	82.50*
Bombay Dyeing (25)	62.00	67.00	61.00	64.00	Gammon India (10)	13.00	13.50	13.00	13.00
Century (100)	947.00	992.00	969.00	980.00	Garware Paints (10)	17.25	17.25	17.00	17.25
Colgate (10)	83.00	87.00	81.00	82.00	German Remedies (10)	33.50	33.50	32.50	33.50
E.I. Hotel (10)	18.00	20.00	17.75	20.00	Gokak (10)	13.50	13.50	13.50	13.50
Garware Nylon (10)	40.50	41.50	40.50	41.50	Great E. Shipping (10)	14.75	15.00	14.50	14.75
Guj. State Fert. (100)	387.00	396.00	386.00	392.00	Gujarat Alkali (10)	39.50	41.00	40.00	41.00
Gwalior Rayon (10)	50.00	51.00	49.75	50.25	Gujarat Narmada (10)	9.75	9.75	9.50	9.75
Hind. Alum. (10)	29.00	31.00	29.50	31.00	Gujarat Steel Tubes (100)	280.00	275.00	265.00	275.00
Hind. Lever (10)	48.00xd	49.50	47.75	49.50	Herdillia Chem (10)	20.00	20.75	20.00	20.75
Hindustan Motor (10)	21.25	26.25	21.00	25.50	Hipd Brown (100)	258.75*	—	—	258.75*
Indian Dyestuff (100)	180.00	198.00	180.00	198.00	Hind Ferodo (10)	32.00	—	—	32.00
Indian Organics (10)	22.00	28.50	27.75	28.00	Hindustan Sugar (100)	192.50	—	—	192.50
Indian Rayon	87.50	97.50	88.00	94.00	Hindustan Spg. (250)	180.00	170.00	170.00	170.00
ITC Ltd. (10)	26.75	28.00	27.00	28.00	Hoechst Dyes (10)	23.50*	—	—	23.50*
J.K. Synthetics (10)	55.25	57.50	55.00	57.00	Idl. Chemicals (10)	13.50*	14.00	13.00	14.00
Larsen & Toubro (10)	45.50	49.00	46.50	47.50	Indian Explosive (10)	20.00	19.75	19.75	19.75
Mahindra & Mahindra (10)	38.00	40.50	38.00	40.00	Indian Hotels (10)	54.00	60.00	55.00	55.00
Metal Box (10)	10.75	—	—	10.75*	Industrial Cable (10)	30.00*	—	—	30.00*
Modi Rubber (10)	24.00	27.00	24.25	27.00	Ingersoll Rand (10)	139.00	149.00	141.00	149.00
Motor Industries (100)	232.50	235.00	230.00	230.00	J. K. Cotton (10)	11.75*	10.50	10.50	10.50
MRF (10)	17.00	19.00	17.25	19.00	Jayant Paper (100)	131.00	135.00	131.00	135.00
Mukund Iron (10)	22.50	24.50	22.00	24.00	Jyoti (10)	18.00	19.00	18.50	19.00
National Organic (100)	168.00	173.00	167.00	173.00	Kamani Eng. (10)	63.50	65.00	63.00	65.00
Nirlon (10)	33.75	36.00	33.50	34.50	Khand. Ferro (100)	120.00	120.00	117.50	120.00
Premier Auto (100)	298.00	329.00	300.00	321.00	Khatau (100)	200.00	200.00	195.00	200.00
Reliance Textile (10)	142.00	144.00	141.00	144.00	Kirloskar Cummins (100)	585.00	602.50	583.75	602.50
Scindia (20)	12.75	13.25	12.75	13.00	Kirloskar Oil (10)	18.75	19.50	19.00	19.50
Shriram Fibres (10)	41.00	44.25	40.50	44.25	Kohinoor Mills (100)	56.00	56.00	54.00	56.00
Siemens India (10)	35.50	36.00	35.25	36.00	Laxmi Vishnu (100)	50.00*	—	—	50.00*
Sirpur Paper (10)	18.50	18.75	18.50	18.75	Madura Coats (10)	15.00	15.25	14.75	15.25
South India Viscose (100)	202.50	202.50	200.00	200.00	Mafatlal Eng. (100)	92.00	95.00	86.00	86.00
Southern Petro. (10)	12.35	13.00	12.35	12.65	Mafatlal Ind. (125)	303.75	303.75	298.75	302.50
Standard Mills (100)	300.00	311.00	296.00	305.00	Mafatlal Fine (100)	197.50*	170.00	167.50	170.00
Straw Products (10)	35.00	37.50	35.00	37.50	Maharashtra Sugar (50)	36.00*	36.00	35.00	36.00
Swadeshi Mills (100)	141.00*	—	—	141.00*	Mahindra Uguine (10)	36.00	38.00	36.00	37.00
Tata Chemicals (10)	48.00	50.50	48.00	50.00	Morarjee (100)	190.00*	190.00	185.00	185.00
Tata Eng. & Loco (100)	400.00	417.00	398.00	402.00	Mysore Cement (10)	26.50	—	—	26.50
Tata Oil (25)	50.50	52.00	49.00	51.00	National Rayon (100)	310.00	320.00	310.00	320.00
Tata Steel (100)	344.00	359.00	346.00	347.00	New Gr. Eastern (100)	70.00*	—	—	70.00*
Volta (100)	234.00	236.00	234.00	236.00	New Stand. Eng. (100)	95.00	95.00	91.25	95.00
Zenith Steel Pipe (10)	44.50	50.00	46.00	47.50	Otis Elevator (10)	26.00*	—	—	26.00*
Zuari Agro (10)	18.00	20.00	18.75	20.00	Pfizer (10)	23.50	23.75	23.25	23.75
					Phaltan Sugar (50)	26.00*	—	—	26.00*
'B' group equity shares									
Ahmed Advance (100)	167.50*	171.25	162.50	171.25	Podar Mills (10)	5.25	—	—	5.25
Ahmedabad Elec. (100)	97.50*	—	—	97.50*	Polychem (50)	50.00	53.00	50.00	52.00
Alkali & Chem. (10)	15.25*	—	—	15.25*	Polyolefins Ind. (100)	256.25	257.50	252.50	257.50
Amar Dye-Chem (100)	115.00	120.00	120.00	120.00	Premier Const. (60)	88.00*	—	—	88.00*
Andhra Valley (100)	104.00	104.00	102.00	102.00	Raghuvanshi (100)	122.50	—	—	122.50
Asian Cables (100)	140.00	130.00	125.00	130.00	Rallis India (100)	162.50	165.00	165.00	165.00
Assoc. Bearing (100)	377.50	382.50	377.50	382.50	Raymond Wool (10)	34.00	35.00	34.00	34.00
Auto Products (10)	10.00	—	—	10.00*	Rohit Pulp (100)	127.50	—	—	127.50
Bajaj Auto (100)	1400.00	1390.00	1350.00	1350.00	Sandoz (10)	26.00	26.50	26.00	26.00
Bajaj Elect. (100)	165.00	—	—	165.00*	Sandvik Asia (100)	290.00	296.25	293.75	296.25
Bayer (India) (100)	185.00	190.00	185.00	190.00	Saurashtra Cement (100)	132.50	—	—	132.50
BASF (10)	31.00	32.50	32.50	32.50	Shri Dig. Cement (100)	242.50*	—	—	242.50*
Best & Crompton (10)	29.50	30.00	29.50	30.00	Shree Niwas (100)	75.00*	—	—	75.00*
Bhadrachalam Paper (10)	13.00*	13.50	13.50	13.50	Shree Ram (100)	75.00*	—	—	75.00*
Bimetal Bearings (10)	25.25	26.25	26.00	26.25	Simplex (50)	60.00	60.00	59.50	60.00
Blue Star (10)	31.50	33.00	31.50	33.00	SLM-Maneklal (100)	143.75	145.00	141.25	145.00
Bombay Burmah (25)	38.00	37.50	37.00	37.50	Special Steels (100)	75.00*	—	—	75.00*
Bombay Oxygen (100)	110.00	110.00	107.50	110.00	Stretch fibres (10)	8.25	—	—	8.25
Bombay Suburban (100)	137.50	—	—	137.50*	Surat Electric (100)	102.00	104.00	102.00	104.00
Cudbury (10)	20.50	22.00	21.00	21.00	Swadeshi Polytex (10)	13.50	14.00	13.50	13.50
Camphor Allied (100)	177.50	182.50	177.50	177.50	Swan Mills (100)	125.00	130.00	125.00	125.00
Ceat Tyres (100)	192.50	192.50	187.50	190.00	Synthe & Chem (100)	68.00	72.00	70.00	72.00
Central India Spg. (50)	43.00	43.00	40.00	42.00	Tata Hydro (100)	108.50*	110.00	108.00	108.00
Century Enka (100)	615.00	615.00	595.00	615.00	Tata Mills (25)	18.00	—	—	18.00
Chemical & Fibres (10)	17.50	17.50	17.25	17.25	Tata Power (100)	111.50	111.50	110.00	111.00
Colour Chem (100)	182.50	185.00	177.50	185.00	Tata Yodogawa (100)	125.00xd	125.00	120.00	120.00
Corom. Fert. (10)	23.00	23.75	22.75	23.75	Tata Finlay (10)	9.00	10.50	9.00	10.50
Crompton Greaves (100)	330.00	333.75	330.00	333.75	Texmaco (10)	40.00	—	—	40.00
Cyanamid India (10)	23.50	25.50	24.00	25.00	United Carbon (100)	180.00*	—	—	180.00*
Dawn Mills (50)	59.00*	—	—	59.00*	Vulcan Laval (10)	25.75	26.50	26.00	26.50
Elecon Eng. (10)	26.00	—	—	26.00*	Walchand Nagar (10)	25.50	25.50	25.00	25.50
Empire Ind. (15)	18.00*	—	—	18.00*	Warner Hind. (10)	21.50	22.50	22.00	22.50
					West Coast Paper (100)	92.50	90.00	87.50	90.00
					Wimco (10)	11.00	11.00	10.75	11.00

Notes: Figures within brackets indicate the paid-up value of shares

xd = Ex-dividend

cd = Cum-dividend

xr = Ex-right

cr = Cum-right

(a) An asterisk mark after the quotation indicates the closing price of the last official trading and not of the date indicated the column.

(b) The dash (—) in the columns for 'High' and 'Low' means that no official trading in the shares had taken place during the period under report.

Market Gossip

Jewellery export for exhibition

ACCORDING to the scheme for export of gold ornaments and articles for sale at exhibitions abroad, the items for export should be made of gold of purity of not less than 0.5833 fineness which corresponds to 14 carats. Exports will be made by Handicrafts and Handloom Export Corporation (HHEC) or its associates including registered exporters of jewellery, cooperative societies of goldsmiths and public sector corporations. Exported items remaining unsold will have to be imported back to India within 15 days of the close of the exhibition and replenishment of the gold content of the jewellery sold at the exhibitions will have to be imported within a fortnight of the close of the exhibition. A minimum value added of 15 per cent to the value of the gold content will be insisted upon in the exported articles. HHEC will maintain complete record of exports made, goods sold abroad, goods reimported and the gold purchased abroad and imported into India.

What's behind silver strength?

WHAT is the secret behind the strength of the silver market in the country while the world over prices have virtually collapsed? In London and New York silver price has nosedived below \$ 5 an ounce level. Only a month ago the white metal was being quoted around \$ 7. The current world parity price for silver is Rs 1,510 on the basis of the official rate of Rs 9.40 per dollar. But in Bombay the price has never gone down below Rs 2,520 per kg. Some rumours referred to silver being smuggled into India but so far at least this has not taken place.

The strength of the silver market is attributed by many to the surprising jump in the consumption of the electronic industries. The demand from these industries is currently estimated at one tonne a day or 30-35 bars of 30 kg each. As against this, arrivals are limited to 50-60 bars a day at Delhi, the main supply centre for silver, against 75-100 bars a day some time ago. This hardly leaves 20-30 bars a day for other consumption

like jewellery, jari, etc. Market sources have also noted that because of the high price of gold that creates security consideration, the lower middle class has shifted its demand to silver jewellery. The consumption in one centre alone, namely, Rajkot for jewellery is 150-200 kg a day and in this town reportedly as many as 3,000 silversmiths are kept busy. This is just an indication of the growing popularity of silver jewellery. No surprise with all the silver being absorbed in the country immediately arrivals are reported, the prices have continued to remain firm around Rs 2,500 per kg. Market sources do not expect them to go down in the immediate future.

Demand for tyre price control

THE Delhi Tyre Traders' Association has expressed concern over the tyre industry's move to raise prices of tyres. It has asked for the imposition of control on tyre prices. A delegation of tyre traders and transporters met the Union Industry Minister, Mr N.D. Tiwari on June 29 to convey concern over the projected tyre price hike. The Government has already referred the question to the Bureau of Industrial Costs & Prices.

No transfer of letter of authority

THE Government of India has turned down the suggestion of the Federation of Indian Export Organisations (FIEO) to revive the facility to transfer letter of authority. The representation had been made because exporters were under strain on resources and found it difficult to utilise the licences for export.

Duty free imports of 16 raw materials allowed

SIXTEEN items of raw materials needed for the manufacture of intermediate goods going into export production will be allowed to be imported duty free. This is an extension of the concession of duty free imports, which was so long allowed for the manufacture of

finished products for exports, to the manufacture of intermediates required for export production. The sixteen items include raw wool, mulberry raw silk, DMT, TPA, nylon filament yarn, polyester filament yarn, caprolactum, acrylic fibre and yarn, electrolytic tin plate, craft paper, LDPE/HDPE moulding powder, polypropylene moulding powder, PVC resin and products, stainless hot-rolled and cold-rolled steel sheets, refined gelatin, para nitro phenol, caustic soda, lauryl alcohol, etc.

Islamic Development Bank appoints AFC as consultants

AGRICULTURAL Finance Corporation has been appointed as consultants to Islamic Development Bank for the purpose of formulating and appraising agricultural development projects in countries where the Islamic Development Bank is planning investment. It has already been working as consultants to the World Bank and Asian Development Bank.

Interest arrears of shipping companies

THE Union Finance Ministry does not favour the granting of moratorium on the payment of interest by shipping companies on amounts drawn by them as loan from the government. The Finance Ministry is agreeable to provide a two-year moratorium on the repayment of the principal amount of loan taken by the shipping companies.

Non-resident investment in Gujarat

AN investment guidance centre would be set up by the Gujarat Government for the benefit of the non-resident Indians, who seek to remit their savings for investing in various schemes in India. The government has already appointed a working group of experts and officials to identify the various bottlenecks holding inward foreign remittances and investment so that the State could take up the relevant issues with the Reserve Bank of India and Central Government.

COMMODITIES

Yarn up

Bombay, July 5

An upward trend was noticed in the local yarn market during the past week. The prices of 150D NRC, 120D NRC, 150D CR, 120D CR and 100D SIV increased by 67 paise, 26 paise, 55 paise, Rs 1.65 and Rs 1.10 to Rs 54.23, Rs 55.88, Rs 53.68, Rs 57.82 and Rs 63.88 respectively. The price of 150 D Acetate, however, declined by 55 paise to Rs 49.01.

Castorseed, oil up

Bombay, July 3

Castorseed and its oil gained fresh ground in the oilseeds market owing to better advices from the producing centres and signs of fresh export inquiries. Castorseed Madras small and Kanpur bold hardened by Rs 6 each to Rs 352 and Rs 342 per 100 kg. Castor commercial oil looked up by 50 paise to Rs 74.50 and BSS oil by Rs 1.75 to Rs 81.75 per 10 kg.

Groundnut oil, which was on an upward journey in the recent past, failed to move up further on lack of demand. It reacted mildly by Rs 1.04 to Rs 140.92 per 10 kg. Groundnut Karad bold, Saurashtra bold and Saurashtra quality improved by Rs 5 each to Rs 615, Rs 620 and Rs 620 on news of lack of rainfall in crop producing centres leading to holding up of stocks.

Linseed oil declined by Rs 1.28 to Rs 109.72 per 10 kg in the absence

of any demand. Linseed bold, however, held the ground as there was no selling pressure.

Most of the cakes yielded sizable ground on selling while there was no demand. Castor, however, advanced by Rs 25 to Rs 775 per tonne.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:—

	2-7-1982	25-6-1982
G. nut Karad bold	615.00	610.00
G. nut oil	140.92	141.96
Cast. Md. Sm.	352.00	346.00
Cast. oil com.	74.50	74.00
Cast. oil BSS	81.75	80.00
Linseed bold	460.00	460.00
Linseed oil	109.72	111.00

Grains mixed

Bombay, July 5

A mixed tendency marked trading in the food grains market last week.

In cereals, wheat (Sehori Pissi) declined by rupees eight to Rs 270-350 per quintal. The Sonakalyan variety ruled steady at Rs 210-225 per quintal. Inflow of inferior wheat from Madhya Pradesh was good.

Good arrivals during the week stabilised rice prices at last week's levels. The Basmati variety was offered at Rs 750-825 per quintal and the Surti Kolam variety at Rs 380-420 per quintal. Heavy inflow was reported from the South.

Trading in coarse grains was at a low ebb. Barring barley, all other grains ruled steady. Barley declined by Rs 15 to Rs 205-215 per quintal. Jowar was quoted at Rs 150-225 per quintal, bajra at Rs 70-260 per quintal and maize at Rs 162 per quintal.

Among pulses, gram dal spurted

by Rs 10 to Rs 330-345 per quintal. Advices from producing centres were encouraging. Sellers were keen on offering goods. Arrivals averaged 1,000 bags of gram dal per day. Moong (chumki) recorded a fall to Rs 18 to Rs 350-370 per quintal. Demand was slack. Sellers were

CORRIGENDUM

The total amounts against Item 6 "bills for collection being bills receivable as per contra", Item 7 "other liabilities" and Item 8 "acceptances, endorsements and other obligations as per contra" in the balance sheet of the State Bank of Bikaner & Jaipur as at December 31, 1981 published in the issue of COMMERCE dated March 27, 1982 should have been Rs 55,12,21,007.61; Rs 35,58,91,454.35; and Rs 71,75,825.20 respectively instead of Rs 35,58,91,454.35; Rs 71,75,825.20 and Rs 55,12,21,007.61 as erroneously printed. Also the amount of Rs 4,74,93,10,077 against particulars of advances as at December 31, 1980 should be deleted. The amounts brought forward under "capital and liabilities" and under "property and assets" were omitted to be printed should be Rs 5,74,53,41,103 and Rs 5,53,86,02,713 as at December 31, 1980. The errors are very much regretted.

— Editor



INDUSTRIAL CABLES (INDIA) LIMITED

Regd. Office: Industrial Area, Rajpura (Punjab)

NOTICE

It is hereby notified for the information of the public that INDUSTRIAL CABLES (INDIA) LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 for approval for the establishment of new undertaking for the production of Jelly Filled Telecommunication Cables with an installed capacity of 5 Lacs CKM and an estimated annual turnover of Rs 2,200 Lacs based on optimum annual production of 5 lacs CKM.

Other particulars of the proposed new undertaking are as under:—

- (1) The new undertaking will be a Unit of Industrial Cables (India) Limited.
- (2) Industrial Cables (India) Limited is the applicant company and is managed by Chairman and Managing Director who works under the supervision, control and guidance of Board of Directors.
- (3) The issued capital of the applicant company is Rs 2,11,78,850/- and subscribed and paid up capital is Rs 2,11,76,150/-. The project cost of the proposed undertaking would be approximately Rs 1114 Lacs.
- (4) Proposed location of the new undertaking would be in District Jind, Haryana State, or District Solan/Sirmur, Himachal Pradesh.
- (5) The total project cost is estimated at Rs 1114 Lacs and sources of finance would be as under:—

	Rs in Lacs
a) Long Term Loans from Financial Institutions	669
b) Central Cash Subsidy	15
c) Internal Accruals/Share Capital	430
	<u>1114</u>

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

For INDUSTRIAL CABLES (INDIA) LIMITED

Dated this 23rd day of June, 1982.

S. N. DUA
Secretary

HOW COMMODITIES MOVED

(Rs per quintal*)

Commodity/ Market	July 3, 1982	A week ago
Groundnut (Rajkot)	467	467
Rapeseed (Kanpur)	383	383
Sesamum (Delhi)	673	683
Castorseed (Kanpur)	263	263
Linseed (Kanpur)	439	439
Sugar (Bombay)	(a) 525	526
Cotton (Bombay)	(b) 3.175	3.175
Jute (Calcutta)	(c) 245	240
Aluminium (Bombay)	(d) 1.605	1.605
Copper (Bombay)	(e) 2.950	2.945
Lead (Calcutta)	(f) 1.100	1.075
Zinc (Calcutta)	(g) 1.680	1.700
Gold (Bombay)	(h) 1.640	1.635
Silver (Bombay)	(i) 2.505	2.590
Caustic soda (Bombay)	(j) 603	600
Soda ash (Bombay)	(k) 234	214

*In terms of 10 gm for gold, kg for silver and candy for cotton

(a) C-30, (b) C-73, (c) W-5, (d) Scrap, (e) Wire bar, (f) Ingot, (g) Hard spelter, (h) Standard, (i) .996, (j) Flakes, and (k) Tata

ive. Tur dal, masoor and urad (moglai) ruled quiet during the week. dal was offered at Rs 400-560 per quintal, masoor at Rs 370-380 per quintal and urad (moglai) at Rs 250-275 per quintal showing no change over the week.

Mixed trend in cotton

Bombay, July 5
A mixed trend was noticed in the spot cotton market during the past week. The failure of the monsoon so far, particularly in the cotton growing centres, has halted the declining trend in prices of some varieties. If the monsoon continues to play truant that could cause some anxiety about the outlook for cotton

during the ensuing season beginning from September next.

While there was a rise in values ranging from Rs 25 to Rs 100 per candy in one or two varieties, in some isolated cases the fall ranged from Rs 200 to Rs 400. As transactions are not much, one has to wait for few more days to see which way the trend would be extended.

There has been fresh speculation about a dozen mills in Bombay deciding to approach the State Government with a request seeking permission to close down their units as they could no longer suffer losses. The strike is seriously hurting the industry which finds that the situation is getting probably beyond repair.

Sugar quiet

Bombay, July 5
Sugar prices in the local market moved in a narrow range during the past week. The price of sugar C-30 grade eased by a rupee at Rs 520-530 per quintal. Sellers were reserved following reports of acceptance of tenders by sugar mills only at higher levels. The undertone was hesitant on account of poor demand. The price of C-30 grade sugar on July 3, 1982 was lower by Rs 133 per quintal than the level a year ago.

The Union Government has fixed the tariff value for free sale sugar at Rs 440 per quintal for July 1982 as against Rs 430 per quintal for the previous month.

Gold and silver down

Bombay, July 5
The prices of gold and silver in the Bombay bullion market declined during the past week. The price of standard mint gold opened at Rs 1,645 per 10 gms and closed at Rs 1,640 per 10 gms. Ready silver (.999 fineness) opened at Rs 2,580 per kg and closed at Rs 2,505 per kg.

Money comfortable

Bombay, July 5
Conditions were comfortable in the Bombay short-term money market during the past week. Interest rates opened at seven per cent and eased to the week's low of four per cent on July 2, 1982. However, the rates moved up to eight per cent at the close of the week.

NOTICE

It is hereby notified for the information of the public that Tata Burroughs Limited proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi under sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for:

A. The Production, supply, distribution or control of:

1. Computer Systems (for local market): Proposed installed capacity, 80 systems; Estimated annual production or turnover, 80 systems.
2. Intelligent Multilingual Visual Display Unit with Controller Interface, Keyboards etc. (for local market): Proposed installed capacity, 1000 nos; Estimated annual production or turnover 1000 nos.
3. Intelligent Multilingual Serial Printer with Controller Interface, Keyboard etc. (for local market): Proposed installed capacity 1000 nos; Estimated annual production or turnover 1000 nos.
4. Indian Languages Printer with adapters, Controller electronics interface for system attachment (for local market): Proposed installed capacity 80 nos.; Estimated annual production or turnover, 80 nos.

B. Rendering the Service:—

1. Computer Software (for export) Proposed installed Capacity:— Estimated annual production or turnover, Rs 570 lakhs.

Other particulars of the proposed new undertaking are as under:—

- (i) Name of the proposed undertaking: Tata Burroughs Limited
- (ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body corporate furnish details of its management structure together with those of the proposed under-

taking: Tata Burroughs Limited is an existing Public Limited Company with its Registered Office at Bombay House, Homi Mody Street, Bombay 400 023. The Company is and will be managed by its Board of Directors.

- (iii) Capital structure of the applicant person or authority and of the proposed undertaking: The total Authorised, Issued and Paid-up capital of the Company is Rs 2.50 crores, comprising of 25,00,000 Equity Shares of Rs 10 each fully paid-up.
- (iv) Proposed location of the new undertaking: Any area in or around Bombay, Maharashtra.
- (v) Brief outline of the cost of project, the scheme and source of finance: The cost of the project is expected to be Rs 975 lakhs, of which Rs 600 lakhs relate to land and buildings and imported/indigenous capital equipment, and the balance Rs 375 lakhs relate to working capital. The cost of the project will be financed entirely from existing share capital and internally generated funds of the Company.

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

For TATA BURROUGHS LIMITED

(Mrs S. V. Baisara)
Secretary

Bombay House, Homi Mody Street,
Bombay 400 023.

Dated 12th day of July, 1982

Department of Space ISRO : SHAR CENTRE Sriharikota PO 524124

Advt. No. PT/84/82, Head, Purchase & Stores, SHAR Centre, Sriharikota invites sealed tenders for the following:

- | | | |
|----------------------------|--|-------|
| 1. File No.
PC/20121/82 | Fabrication, supply, erection, testing and commissioning of Tilting Fixture for tilting of cylindrical specimens of 3.2M dia and 3.4M long and weighing around 50 T from horizontal to vertical and vice versa with Hydraulic System OR Bull Gear System as per our specification. | 1 No |
| 2. File No.
PO/20110/82 | Design, fabrication, testing and supply of 60 Tonne payload capacity low bed Semi-Trailer having load platform size 6 Metre length X 4 Metre width and loading height shall be as minimum as possible but not exceeding 1200 mm as per our specifications | 1 No |
| 3. File No.
PA/10137/82 | Portable Oscilloscopes
Band width : 25 MHz
Input impedance : 1M ohm 11 20 pF | 2 Nos |
| 4. File No.
PV/15163/82 | Design, Supply, installation and commissioning of Carbondioxide extinguishing system | 1 Set |
| 5. File No.
PV/15164/82 | Design, supply, installation and commissioning of IR fire detection system | 1 Set |

Tender documents giving full specifications of the above items can be had from Head, Purchase & Stores, SHAR Centre, Sriharikota PO 524124, Nellore Dist. (AP) on request by sending a crossed DEMAND DRAFT worth Rs 20/- for each item on STATE BANK OF INDIA, Sriharikota favouring 'Accounts Officer, SHAR Centre'. Tender fee should be in the form of DD only and no other mode of payment will be accepted. Please mention our file reference while asking for tender documents.

Last date for receipt of sealed tenders is 13.8.1982 by 1400 hours and the tenders will be opened on the same day at 1500 hours. Due date will not be extended further under any circumstances. We reserve the right to accept or reject any or all tenders without assigning any reasons therefor.

davp 643 (50)/82

INDIAN ECONOMY : BASIC INDICATORS

By COMMERCE RESEARCH BUREAU

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	During the week ended				Week	Percentage variation over		
	June 12 1982	June 5 1982	May 15 1982	June 13 1981		Month	Year	Two years
Manufactured products	270.9	268.4	265.7	276.3	0.9	2.0	-2.0	9.9
Primary articles	268.2	265.2	259.6	258.4	1.1	3.3	3.8	18.6
Fuel, power, lubricants, etc. .. .	446.5	446.5	437.2	401.0	—	2.1	11.3	26.6
All commodities	284.6	282.1	277.7	279.4	0.9	2.5	1.9	15.2

Money and Banking

	During the week ended				Week	Percentage variation over		
	June 18 1982	June 11 1982	May 21 1982	June 19 1981		Month	Year	Two years
Money supply (M3) (b)	64,820(a)	64,895	64,207	58,254(a)	-0.1	1.0	11.3	33.2
Bank credit	29,865	29,829	29,885	26,282	0.1	-0.1	13.6	37.1
Aggregate deposits	44,726	44,648	44,412	39,899	0.2	0.7	12.1	35.7
Foreign exchange reserves (a) .. .	3,870	3,855	4,132	4,842	0.4	-6.3	-20.1	-27.4

MONTHLY INDICATORS

	Unit	Latest month Month	Amount/ Index	Previous month	Percentage variation over previous month	Recent trend (per cent)(c)
Industrial production (crude index) ..	1970=100	May 1982	163.7(a)	165.0	-0.8	12.5
Electricity generation (public utilities)	Million kwh	May 1982	10,603	10,652	-0.5	5.1
Exports	Rs crores	December 1981	502	634	-20.8	6.0
Imports	Rs crores	December 1981	1,131	1,112	1.7	5.1
Trade balance	Rs crores	December 1981	-629	-478	—	—
Foreign exchange reserves (a)	Rs crores	May 1982	3,985	4,149	-4.0	-19.2
Wholesale price index	1970-71=100	May 1982	277.5	276.2	0.5	—
Consumer price index for industrial workers	1960=100	April 1982	459	457	0.4	7.8
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	November 1981	176.3	174.2	1.2	9.6

ANNUAL INDICATORS

	Unit	1981-82 (CRB estimates)	1980-81	1975-76	1950-51	Percentage variation in 1980-81 over 1979-80	Annual rate of growth (%) between 1975-76 and 1980-81
Population	Crores	69.1	68.4(d)	60.4	35.8	3.2	2.2(e)
Gross National Product (at market prices) ..	Rs crores	1,38,000	1,25,744	73,907	9,503	17.5	11.2
Per capita GNP (at market prices)	Rupees	1,997	1,855	1,224	265	14.9	8.7
Real national income (Index)	1970-71=100	144.1	137.9	117.1	48.9	7.7	3.3
Real per capita income (Index)	1970-71=100	112.6	109.9	104.9	73.6	5.3	0.9
Agricultural production (Index triennium ending)	1969-70=100	139.3	135.2	124.8	58.5	15.4	1.6
Foodgrains production	Million tonnes	135.0	130.0	121.0	55.0	18.2	1.4
Industrial production (Index)	1970=100	166.3	154.0	119.7(f)	26.5(f)	4.0	5.2
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.0	30.0	18.6	0.18	0.7	10.0
Electricity generation (public utilities) ..	Billion kwh	122.9	111.6	79.2	5.3	6.7	7.1
Exports	Rs crores	7,500	6,711	4,043	601	3.9	10.6
Imports	Rs crores	13,200	12,501	5,265	650	38.6	18.6
Trade balance	Rs crores	-6,700	-5,790	-1,222	-49	—	—
Foreign exchange reserves*	Rs crores	3,797	5,316	1,702	911	-6.8	25.6
Money supply (M3) (b)*	Rs crores	62,281	55,445	22,286	2,336	18.5	20.0
Bank credit*	Rs crores	29,599	25,371	10,877	547	17.8	18.5
Aggregate deposits*	Rs crores	43,750	37,988	14,155	881	19.6	21.8
Wholesale price index (average)	1970-71=100	280.3	257.2	173.0	47.5	18.2	9.0
Consumer price index for industrial workers*	1960=100	..	420	286	..	12.6	8.0
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	..	162	93	..	13.3	11.7

Notes:

(a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year. (d) As on March 1, 1981 as revealed by 1981 Census. (e) Between 1971 Census and 1981 Census (f) Figures relate to 1975 and 1950 respectively.

* Financial year-end data ** Calendar year-end data (—) = Nil or negligible (..) = Not available

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—A FEATURE

ENERGY

INDO-SWEDISH COOPERATION



Indian energy policy

By T. R. SATISH CHANDRAN

It is recognised that energy is by far the most critical input in our efforts to fulfil humanity's material aspirations. Energy crisis poses a serious threat to the oil importing developing countries in the Third World. In most of these countries, the volume of energy consumption would intensify still further as the impulse of economic activity accelerates all along the industrial and agricultural landscape. There is also growing substitution of non-commercial energy, used widely in the past, by commercial energy in almost all sectors of the nation's economy. The rapid rate of industrialisation in the coming years and the increasing substitution by commercial energy in the economy are likely to widen considerably the gap between the requirement and the availability. The current period of energy transition therefore is going to be very crucial in all the oil importing developing countries in the Third World. This is going to be an uphill task, fairly long and agonising. This transition can be effected only with the cooperative and concerted action of the entire global community.

Oil dependency

India, in common with many developing countries, uses energy in a variety of forms ranging from nuclear fuel to agricultural waste and animal dung. The pattern of commercial energy consumption is characterised by a high degree of oil dependency, the share of oil products measured in coal replacement terms being close to 50 per cent. Non-commercial energy sources obtained from fire-wood, agricultural waste and animal dung etc., are very important particularly in the rural areas. This contributes nearly 45 per cent of the total energy requirements of the country.

In regard to natural resources, India is somewhat fortunate. We have fairly large coal reserves presently estimated at around 111 billion tonnes. The total hydroelectric potential according to latest assessments is around 75,000 mw at 60 per cent load factor of which only a little over 10 per cent has been exploited so far. I must, however, hasten to point out that in relation to India's size and population, the reserves are small as com-

pared to those in other countries. Our recoverable fuel reserves of oil and gas are smaller still being about 360 million tonnes of oil and 350 billion cubic metres of gas. From the long-term angle, no doubt, it is clear that the energy economy in India, located as it is in the tropical region and with a predominantly agricultural economy, would have to centre on nature's gift of sun-shine and biomass fuel. The problem in the medium term, however, is on finding ways of meeting the energy demand in the transition period.

It is clear that continued dependence on the imported energy would not be in the best interests of the country. With the spurt in oil prices since 1973, there has been a growing pressure on the balance of payments position and today the oil import bill is over Rs 50 billion and accounts for 70 per cent of the total imports in India. We also realise that even the physical availability of oil in the international market will pose a problem in the years to come. This is why the key element in our development strategy is to reduce dependence on the imported oil.

Energy forecasts

Certain exercises have been carried out by us for forecasting the energy demand in the next two decades. On a somewhat optimistic growth rate of 6 per cent per year, it is estimated that energy requirements would register a four-fold increase by the turn of the century. In absolute terms, this would mean over 500 million tonnes of coal, over 90 million tonnes of oil and about 550 twh of electricity. Even if vigorous policy action is taken to increase the efficiency of fuel utilisation and implement conservation measures, the energy demand by the turn of the century would still be three times the present levels. The quantities involved are, no doubt, mind boggling and pose a tremendous challenge to this country.

The Sixth Five Year Plan spells out the strategy to be followed by India to meet this challenge. The main elements of our energy strategy are:

- (a) accelerated exploitation of domestic conventional energy resources,
- (b) management of oil demand,
- (c) energy conservation, and

(d) exploitation of renewable sources of energy.

Let us look at each of these elements. In regard to the conventional energy area, coal is our main source of primary energy. The total coal reserves are sufficient to meet the country's requirement for several decades to come. It is programmed to step up coal production at a rapid rate so as to reach a level of 165 million tonnes by the year 1984-85. This rapid expansion in coal production would necessitate major changes in the mining technology. A greater shift towards open cast mining and introduction of higher capacity equipment to increase productivity is a vital element in our coal production programme. In the case of underground mining, the conventional 'board and pillar' method will be gradually replaced by long wall techniques, involving the development of sophisticated equipment.

The production of lignite is also proposed to be increased from 4 million tonnes per year to 8 million tonnes per year by the end of the Sixth Plan.

The imperative need to develop indigenous resource of oil and gas has been fully recognised by us and forms a basic element in our energy strategy. Both on shore and off-shore exploration are being sharply accelerated. In order to supplement the efforts of the national oil companies in this regard, selected blocks are proposed to be leased out to reputed foreign companies on participation contracts or joint ventures.

The original target fixed in the Sixth Plan for domestic production of crude oil was 21.6 million tonnes by 1984-85 compared to the production level of 11.8 million tonnes in 1979-80. Subsequently the entire oil development programme has been reviewed and both exploration and production are proposed to be accelerated still further. We now hope to raise domestic oil production to 29 million tonnes by 1984-85.

Major thrust

The power development programme is also being given a major thrust with an addition of nearly 20,000 mw of generating capacity in the Sixth Plan period envisaged. In order to ease the pressure on rail traffic, greater emphasis is being paid to the setting up of lar-

Mr Satish Chandran is Secretary, Department of Power, Ministry of Energy, Government of India.

sized thermal stations at coal pit-heads in the Central sector. Matching expansion of the transmission and distribution systems has also been planned and the regional grids are being strengthened to enable more optimal utilisation of the generating capacity. These regional grids would ultimately merge into a national grid.

To meet the needs of the rural areas, special attention is being given to rural electrification and the Sixth Plan has laid down a target of energisation of 2.5 million pump sets and electrification of one lakh villages.

It is recognised that in the current energy context, hydro power development must be given priority. With this object in view, investigations of new projects are being accelerated and a big impetus to hydro development is expected in the Seventh Plan period. There are, of course, a number of constraints in accelerating hydro-power development in India. Almost 40 per cent of the balance potential lies in the Himalayas where access is difficult, geological conditions are complex and the working seasons are limited. Further these hydro projects require large block of investments. The mobilisation of requisite financial resources would be a major constraint in the coming years.

The share of nuclear generation in the total power programme in the next two decades will remain modest since the reasonably assured uranium reserves in India are not of a very high order. A faster nuclear programme can be anticipated only after the fast breeder technology is fully mastered which would enable us to use our fairly large deposits of thorium.

Renewable technologies

In regard to new and renewable technologies the approach being adopted by us is to implement, on a large scale, programmes such as those of energy forestry and bio-gas where technology development has already reached a stage which permits field applications. A large programme for fuel wood plantations is being taken up in the Sixth Plan, the target being set at 1.3 million hectares of plantation. We have also launched a major programme for the establishment of 4 lakh bio-gas plants. Other areas like solar energy and wind mills have the potential of becoming commercially viable in the next 5 to 7 years and the programme is to carry out field testing and demonstration of these technologies on a country-wide basis. It is also intended to intensify research and development in those technologies where the potential is

likely to be available over a longer time horizon.

Of the total outlay of Rs 975 billion in the Sixth Plan, nearly 30 per cent has been earmarked for the energy sector. This itself is a clear indication of the importance that Government of India places on development of energy.

Energy conservation

Oil being most scarce and expensive, the management of demand for petroleum products is an obvious necessity. The per capita consumption of oil in India is among the lowest being barely 48 kg per year. Even out of what little we consume, 70 per cent is used for freight and public transport and agricultural uses and about 20 per cent is used in the domestic sector almost entirely for lighting in the rural areas and cooking in the urban areas. Even then, a variety of measures are being taken to curtail oil demand. Electrification of railways is being accelerated in order to reduce diesel consumption for railway traction. It has been accepted as a long term policy, that long distance transport would primarily be carried by railways which are more energy efficient than road transport. Oil or gas is not permitted to be used as the primary fuel in any new utility power station. In other sectors also, measures have been taken such as the introduction of a scheme for replacement of inefficient boilers in industry, development of cooking stoves of higher thermal efficiency, etc. Nevertheless given the fact that the widening of the transport infrastructure is necessary for both agricultural and industrial development and viable alternatives to liquid fuels will not be available, India will have to continue to import substantial quantities of oil with all the concomitant balance of payments problems.

It is not as if energy conservation is needed only in the use of oil. We realise that the cheapest form of energy is the energy that can be saved. Therefore one of the elements of the energy strategy is to pay greater attention to the efficiency of energy conversion and energy utilisation. A number of measures are being undertaken to reduce the losses in the process of production and transport (or transmission) of coal, oil and power. Wherever combined generation of electricity and process heat is possible, this is being insisted upon in new industries. In several states action has been initiated for improving the efficiency of pump-sets used for the irrigation. We have also evolved certain improved designs of domestic wood burning stoves which we hope would be popularised in the near future. Considerable attention is being paid to

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energy conservation in the industrial sector. Government is examining the feasibility of introducing fiscal and financial incentives to encourage replacement of equipment and processes by those which are better and more energy efficient. The waste heat recovery devices and co-generation are also being contemplated for the industries. In fact a high level inter-ministerial group on conservation has been set up which is expected to identify specific areas and suggest the administrative, institutional and fiscal measures required to implement such energy conservation programmes.

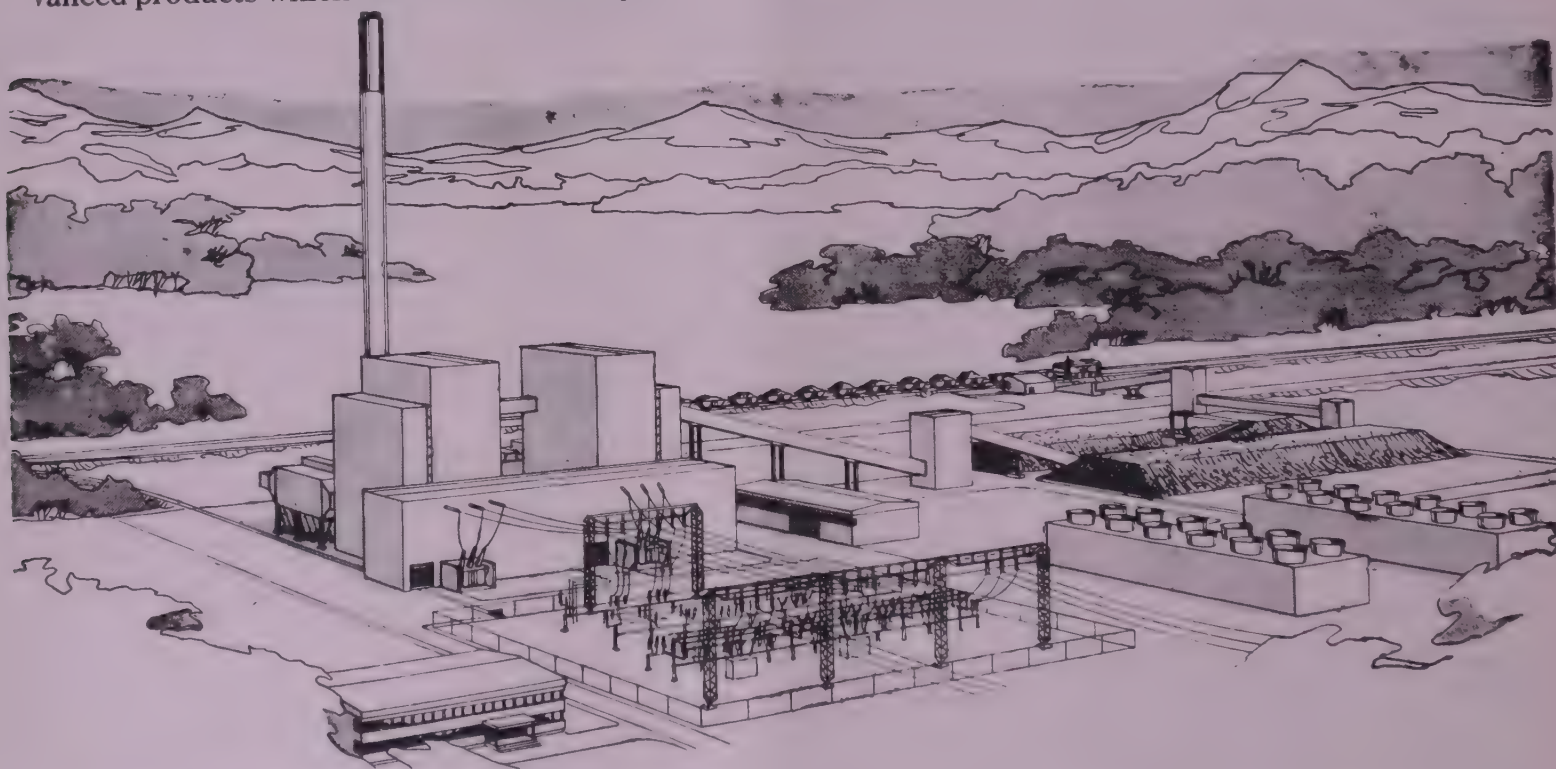
Less privileged as we are, India is still fortunate in many ways. Its own energy endowments are not insubstantial. Over the years, our scientific, technical and industrial capabilities have developed in a big way. In the short and medium terms, the thrust in energy policy would be to allocate increased investments for the development of conventional energy sources like oil, coal, hydro and nuclear power. The scale of renewable energy programmes like energy forestry and bio-gas is being expanded sharply. In other areas of new and renewable energy technologies, greater mobilisation of efforts would be under way to intensify research, development and field demonstration. Thus the energy policy of the country is a multifaceted one which seeks to bridge the gap between energy supply and energy demand with a view to ensuring sustained economic growth and rapid improvement in the quality of life of the people. Our task will be facilitated by the extent to which there are enhanced capital inflows and mechanisms available to tide over the balance of payments problems arising from oil imports.

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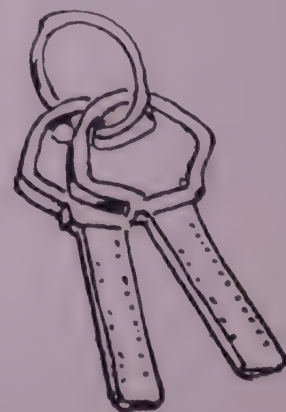
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Energy situation in Sweden

By SVEN LALANDER

TOTAL supply of energy in Sweden for energy use is today about 415 twh, if all energy sources are calculated according to their calorific value. For a population of only 8 million inhabitants this represents a high per-capita consumption by international standards. The main reasons for this are the high material standard of living, the relatively high proportion of energy-intensive industries and the cold climate in Sweden.

Oil is by far the most important energy source. As Sweden has no domestic oil or gas resources all has to be imported. In 1980 net imports of crude oil and oil products were about 25 million tonnes at a cost of almost 28 billion Swedish crowns, representing about 20 per cent of total imports goods to Sweden.

Only small coal reserves of poor quality are available in Sweden. Imports of coal and coke are so far relatively small representing less than 5 per cent of total energy supply. Of greater importance is domestic biomass in the form of lyes and fuelwood, utilised mainly in the relatively large paper and pulp industry.

Most important source

The most important indigenous source of energy is hydro power which in a year with average rain- and snowfall amounts to 61 twh. This corresponds to about 15 per cent of total energy supply in Sweden when all energy sources are calculated according to their calorific value. But, this is a much too simplified calculation of the real value of hydro power which from an economic point of view has about twice the above mentioned value.

In recent years nuclear power has become important for the Swedish energy supply. In 1980 nuclear power production amounted to 25 twh or nearly 10 per cent of total supply. With new reactors taken

into operation last year the nuclear power production in 1981 increased to 36 twh. Although important uranium deposits exist in Sweden they have so far not been utilised. Nuclear fuel is therefore imported in enriched form.

The rapidly rising costs for oil during the oil crisis in 1973 were the main reason for the first comprehensive Swedish energy policy programme adopted by Parliament in 1975. The main objectives of this policy were to reduce the growth of total final energy consumption and to minimise dependence on imported oil. To these ends, new or amplified programmes for energy conservation and energy research and development were adopted. This programme has later been enlarged and strengthened.

Nuclear power has been long debated in many countries. So even in Sweden, where a referendum on the nuclear power development was held in 1980. This resulted in a decision in Parliament that the existing nuclear programme including 12 reactors should be completed, but that no further units should be built in Sweden. In addition, it was decided that nuclear power should be phased out in Sweden at the latest in the year 2010.

The necessity to decrease the big dependence on imported oil remains in the new guidelines for the energy policy for the remaining years of this century, adopted by the Swedish Parliament last year. Sweden must gradually move towards an energy system mainly based on durable, preferably renewable, and indigenous sources of energy which have the least possible impact on the environment. Effective conservation of energy must also be promoted. A wide range of instruments has been introduced to reach these ambitious goals. Some of them are mentioned below:

Energy research

An extensive three-year programme for energy research and

development, channelling considerable resources into the development of technologies for a more efficient utilisation of energy and for oil substitution; government loans for energy conservation measures in residential and other buildings; building regulations governing minimal thermal efficiencies for new buildings; government financial support to local authorities and industries for investments aimed at a rapid replacement of oil; training courses on energy subjects and information programmes; energy taxes have also lately begun to play an important role as an instrument for energy policy.

The main source for electric power production in Sweden has been hydro-power. We have a very long tradition in constructing hydro power plants. Today there are in operation about 1,000 hydro plants of which 14 have an installed capacity of more than 200 mw. The geological and hydrological conditions in Sweden have favoured the development of underground stations and the construction of large hydro power dams.

During the last decades, hydro power production in Sweden has had to be supplemented by conventional thermal power plants of different types and by nuclear power. The necessity to switch from oil to other fuels in thermal plants has favoured important research and development work in fuel techniques. Of overall importance is the effective operation and maintenance of thermal powerplants. Besides the central technology involved in the construction of thermal power plants, e.g. coal-burning, turbines etc there are many important environmental considerations to take into account such as dust collection and ash-handling.

Besides coal, wood and other solid fuels can be a cheap alternative for energy generation, especially in small and medium-sized plants. Sweden has a long tradition in using wood for energy purposes and today we have launched an intensive re-

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search and development programme in this field. I am convinced that some of our experiences can be of interest to India.

The main hydro power resources in Sweden are located in the sparsely populated northern parts of the country. The large energy consumers are on the other hand to be found in the southern regions. This is the main reason behind the construction of the large 220 and 400 kv transmission system in Sweden.

First country

Already in 1952, Sweden became the first country in the world to take a 400 kv line into operation. We now have 7 main 400 kv lines from the north to the south, all equipped with large series capacitors to improve the transmission capacity. To supervise this important transmission system modern computerbased dispatching centres have been installed. The Swedish know-how both in planning and in operation of large transmission systems is considerable.

The Swedish transmission system is closely interconnected with all our neighbouring countries, together forming the important Nordel power pool with an installed capacity of

about 70,000 mw. We have successfully developed suitable methods for power cooperation not only between the Swedish power companies but with all the power companies in the Nordic countries. We would be glad to share our experience and knowledge also on these issues with India.

High voltage DC transmission, HVDC, is today conventional technique although in further development. As you may know the first commercial DC interconnection in the world was taken into operation in Sweden in 1954. It was the cable connection between the mainland and the island of Gotland. It was the result of a fruitful cooperation between the Swedish State Power Board and ASEA, a cooperation which has been followed by other large DC interconnections between the Nordic countries.

Sweden still has a unique competence and a leading position in the development of the HVDC technology.

Other areas include ventilation systems, an area which offers great possibilities of energy saving and wind energy, an interesting and

challenging new source of energy, the use of gas in petrochemical processes and developments and energy saving in the bearing industry.

Similar profiles

I think the profiles of India and Sweden in the energy field have many similarities in spite of the great difference in size of the countries and the large geographical distance. We both have important hydro power resources which often are located far from the main consumption centres. We both are embarking upon important programmes for the development of new energy resources for the future.

The main difference seems to be that Sweden has finished most of the development of the conventional energy resources, while India is embarking upon a very ambitious and large development programme in the coming years. This seems to me to provide a good basis for an increased transfer of Swedish experiences and know-how.

The experience from constructing and operating the integrated Swedish energy systems, favour system solutions and turn-key projects.

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Hydroelectric power system development in India

By A. N. SINGH

INDIA with a diverse topography offers excellent opportunities for hydro power development and is endowed with a sizable potential of this renewable energy resource. Development of hydroelectric power, particularly in conjunction with multi-purpose projects, has received high attention in India from about 1945 till very recently. India had been fortunate to make an early start on hydro electric development in the last decade of the 19th century. However, the earlier development had been halting and sporadic as the attention in power supply had a metropolitan orientation. Locations for hydro electric power stations were expectedly in more difficult and backward areas, somewhat away from the urban centres. Most of the earlier developments were in the then princely states; somewhat larger developments in other parts were taken up in the 1930s. However, the total installed capacity of hydro electric plants in the country at the time of independence was only about 500 mw.

In the concrete programmes of development after 1947, hydro electric projects, principally of the multi-purpose type became a central component for development of the country on a wider base. These projects provided the largely needed and vital irrigation facilities in the country as also power for industries. It was also with the development of these projects that extension of transmission networks started, forming first a nucleus and gradually extending on to cover areas for supply to villages and small towns of the country. This network has in time extended to form the base for regional and national grids. These projects have also developed and opened up the backward areas of their location.

Major schemes

A large number of major schemes have been constructed in the 35 years from 1947 which have raised the installed capacities more than 24 times to a figure of nearly 12 million kw now from a mere 0.5 mkw in 1947. Among the

major multi-purpose and hydro power schemes taken up early in this period were Hirakud, Gandhisagar, Ukai, Rihand, Bhakra, Sharavathy, Koyna, Sabarigiri, Iddukki and Nagarjunasagar. One important aspect to which attention was given in this period was building up of a systematic data base, a mechanism, for coordinated planning and also technological facilities for design and engineering.

The Central Water and Power Commission, (C W & P C), whose predecessor bodies were set up in about 1945 played a central role in fostering of hydro electric and multi-purpose development through evolving a network for requisite data collection and carry out basic long range planning of river valley developments. Besides this, it also provided a build up of design and engineering facilities and carried out construction of the very first project in some of the remote and difficult areas. Many of the states also built up organisations for design, engineering and construction of hydro electric projects. One of the important tasks carried out by the CW&PC was an assessment of hydro electric potential based on specific developable sites carried out in 1953 to 1959 which has provided a guiding base for faster development of hydro electric potential. The organisation has subsequently been divided into two bodies—the Central Electricity Authority and the Central Water Commission due to re-organisation at the government level which are jointly continuing the basic activities on the data analysis and conceptual planning for hydro electric development.

India today has approximately 12,000 mw of installed generating capacity in hydro stations. This capacity is contributed by about 110 mostly medium sized hydro power stations. There are about 55 micro hydel schemes with an aggregate capacity of about 29,000 kw constructed mainly to meet the power requirements of small population centres in isolated hilly and backward areas. Most of the hydro power stations in operation have been constructed in the nearly three decades from 1950 onwards.

There has been a progressive increase in the quantum of hydro electric capacity being added. The hydro installed capacity has generally been 35-45 per cent of the total installed generating capacity. In terms of energy, the hydro contribution has been 40 to 50 per cent.

Wide variety

The projects executed in India cover an extremely wide variety in the matter of types and magnitudes of hydro electric projects. It includes bulb type generating unit plants on major river systems operating at heads of 3.5 to 6 m. at one hand and Pelton turbine installations upto a head of over 900 m. on the other. In between this, it includes all types and sizes of Kaplan, Francis and Pelton installations going upto maximum unit size of 165 mw. It covers dam site power stations, power stations supplied by combinations of tunnels and channels over 30 km. long transbasin diversion schemes, cascade power stations on single rivers, low head power stations supplied by channels of 400 to 600 cub.m. per second discharge capacity, high head as well as low head underground power stations etc. It is difficult to state whether any possible type of hydro electric power station is not available in the country. Besides the above types of medium and large power stations, there is a large number of mini and micro power stations, again covering a vast variety in construction types. An important recent addition to the hydro scheme in the country is the introduction of pumper storage developments. Five such schemes with a total installed generating capacity of about 1400 mw are under construction and so far 200 mw has been commissioned.

New hydro capacity

India is very keen to accelerate the pace of its hydro electric development. However, due to variety of causes, the materialisation of new hydro capacity in the Sixth Plan period (1980-85) is estimated at only about 5000 mw but attempts are being made to make or expedite projects with a target of nearly 15,000 mw of capacity in the next Plan period (1985-90). At the present time, there are nearly

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70 hydro electric projects of various magnitude under construction which on completion, would provide an additional capacity of 10,700 mw. Efforts are being made to complete the project preparation to achieve the higher targets of hydro capacity additions being considered. With the taking up of a large thermal power programme to meet the immediate growing power needs of the country, the hydro proportion is likely to decline at the end of the current Plan period which, as mentioned earlier, is proposed to be corrected with a larger hydro programme in the next Plan period.

The Central Electricity Authority is presently engaged in an exercise to re-assess the hydro electric potential of the country (earlier assessed during 1953-59) keeping in view the changes in the energy economic, the technological developments in design construction and equipment etc. The fresh re-assessment, it is taking into account utilisation of a greater proportion of seasonal energy in an integrated system. With this being considered, the power potential has been tentatively re-assessed at about 400 twh which can be roughly expressed as 75,000 mw at an annual load factor of 60 per cent. One of the problems which is being encountered in reaching a finality in assessment is the wider view simultaneously being taken at present regarding utilisation of waters for irrigation development. India has so far developed only a relatively small proportion of its estimated potential. The hydro potential

developed amounts to approximately 12 per cent while a further 8.5 per cent will be provided by schemes presently under execution.

Mountainous areas

A major proportion of the future hydro electric power sites as can be expected are located in remote mountainous areas of the country. This also implies that quite a large number of these are in the Himalayas and associated mountains. The planning and identification of these sites is being done basically with minimising of submergence. Many of the schemes will involve tunnelling for concentration of heads as well as underground works. Both these aspects should reduce disturbance to the terrain. Storage in the Himalayas has to be very carefully chosen in view of the narrow nature of the valleys and consequent high costs. However, considering the monsoon type variation of the inflows a minimum of such storage is essential for enabling proper use of the energy while the water conserved will have many other valuable uses. Outside the Himalayas, there are a few major storage sites still to be developed for vital multi-purpose benefits. Other schemes are planned to utilise the regulation of flow provided in this manner. A large number of small storage possibilities for combined use are also visualised to be available.

A very concerted effort is being made to utilise possibilities of development on falls on irrigation canals where

ever available. It may be mentioned that all significant possibilities of this nature on canals developed in the past two or three decades have been normally utilised as an original proposition. Instances may be given of the development of falls of 3 to 6 m even on the Kosi Eastern Canal and the Gandak Western Canal. Larger instances may be mentioned of the Sharda Canal and the Bhakra Canal. Many other schemes of this type are being pursued at present. Schemes are being taken up to develop unutilised falls on many of the older canals as may be available in the various states of peninsular India or even in Punjab, Haryana, Uttar Pradesh and Bihar. Even though the power potential from this source is relatively limited, the fullest efforts are being made that these are made use of.

Pioneer

India in fact can claim to be a pioneer in the matter of low head canal falls development. It had developed a series of 8 low head power stations on the Ganga canal near about 1930. The heads at these stations ranged between 2.5 m to 10 m. The generating unit ratings were just a few hundred kw, vertical Kaplan units with open flume settings and automatic bye-pass etc. Some of these stations are still in operation while some have been remodelled with somewhat larger units. The bulb unit power stations of Kosi and Gandak canals had also been taken up quite early in the 1960's. These bulb units with runner diameter of the order of 4.5 m and output of 5,000 kw each were among the very large units at that time. More projects with bulb unit installations are presently in hand.

India has limited possibilities for hydro electric generating units of very large rating. However, there are quite a few sites where medium head units of ratings 200 mw to 500 mw or more are being considered. Most of the available sites would, however, be of medium installed capacities only. This gives rise to the situation that a large number of projects have to be taken up simultaneously for providing a specific quantum of installed capacity. When this is considered in conjunction with the fact that the sites are located deep in remote inaccessible areas, the problems of technology, infrastructure manpower etc would be evident. Thus the large hydro programme of 15,000 mw in the next plan calls for taking up work on a number of sites and resolving the relevant management and financial problems.

India has been able to develop a large number of wide variety of hydro electric projects. It is gratifying that all these have given most satisfactory performance after completion. The developments in the future will cover a much

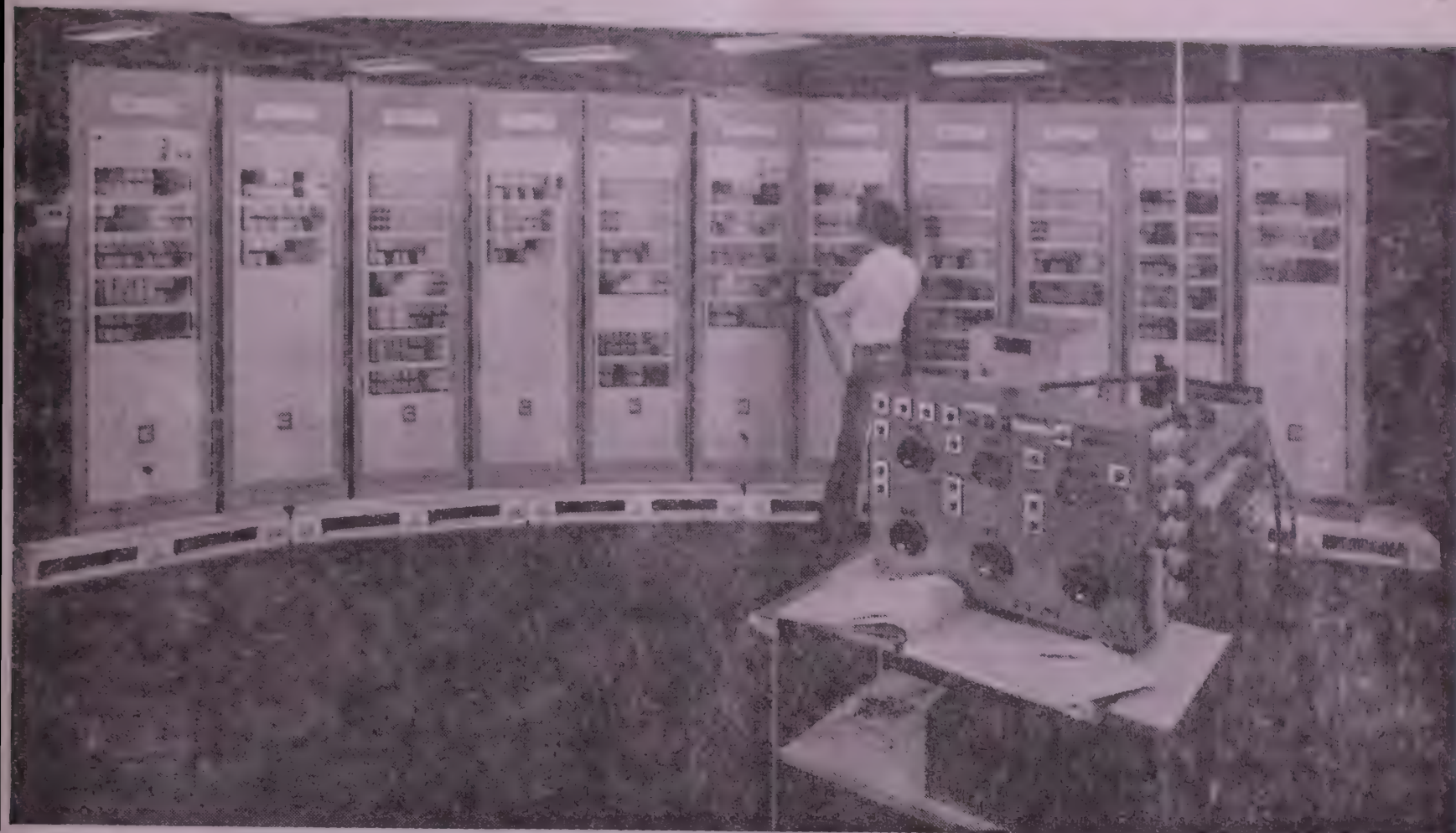
A new home cleaner

The Swedish Prime Minister, Mr Thorbjorn Falldin, when in Bombay in February this year, inaugurated a new company, Eureka Forbes Ltd, a collaboration between Forbes Forbes Campbell & Co of India and Electrolux of Sweden. Within a matter of five months Eureka Forbes, by resorting to a new concept of door to door selling of goods involving capital investment, has earned a name for itself and for its Eureka all-purpose home cleaner, called "Euroclean." Having done exceptionally well in Bombay, Eureka Forbes, under the able guidance of Mr Nemie Josiah, vice president (marketing), is now in the process of extending its operations to Delhi



Mr Nemie Josiah

and has plans to cover the whole country by the end of the year.



A view of the relay panels intended for 400 kv transmission lines, undergoing checks.

larger variety and cover many power problems such as project works at extremely high altitude, or dealing with flood magnitudes of staggering quantities. We look forward to the development of this with high optimism.

Apart from the programme of development of conventional hydro plants, a new area of future development recently taken up is the feasibility study for tidal power development in the Gulf at Kutch on the West Coast of the country. Earlier studies conducted with the help of UNDP has led to quantification of the considerable tidal power potential available in the Gulfs of Kutch and Cambay and delineation of the possible schemes of development. Based on the report of the UNDP expert, it has been decided to take up detailed investigations and studies on medium sized tidal power site in the Gulf of Kutch. These studies, expected to be completed in about 5 years time, would lead to preparation of a feasibility report of subsequent action ultimately leading to its implementation in not too distant future.

Transmission and system integration

The transmission system in India has also grown to an advanced stage with the growth of generation facilities and power supply. The last three decades have witnessed the installed generating capacity grow from 2,300 mw in 1951 to over 33,000 mw at present. The annual

energy generation in utilities has increased from 6 billion kwh to 111 billion kwh. The initial development of transmission system, as mentioned, was closely linked with the development of hydro electric power stations. The first among high voltage transmission line in India was developed at the beginning of the century in association with the Sivasamudram hydro electric project for transmission of power to the gold mining industry in Kolar and it is reported that this transmission line of 78 kv was the longest in the world of that voltage class at the time. Even with this early beginning, however, the highest transmission voltage in the country in 1947 was 132 kv for a single transmission line and besides there were a few lines of 110 kv.

With the intensive programme of power development, particularly of the multipurpose river valley projects taken up thereafter, transmission line lengths grew rapidly. The length of transmission lines of 66 kv and above increased from about 8,000 circuit km in 1951 to over 120,000 circuit km. Transmission voltage of 220 kv was introduced in 1960's. The length of 220 kv lines has increased from 1,100 circuit km in 1961 to about 33,000 circuit km at present. At this time 400 kv is the highest voltage of power transmission in the country. The first 400 kv line was commissioned in 1977 and at present we have about 2,500 circuit km of such lines in existence. A large pro-

gramme of expansion of 400 kv network is presently underway in the major power regions and it is expected that an additional 10,000 circuit km would be commissioned by the end of Sixth Plan.

Regional context

This development of transmission system has naturally been associated with new approaches to power generation with emphasis on planned optimised generation from a combination of different sources—hydro electric, thermal and nuclear—viewed in a regional context. This has also been associated with increased coverage for power supply and its diversification. The number of consumers served by electricity for instance has increased from 1.5 million in 1951 to 27 million. There has been a large growth in power utilised for agricultural purposes. The progress of rural electrification has been phenomenal against 33,060 villages and 21,000 agricultural pump sets electrified in 1951, we now have electricity supply in over 2.71 lakh villages and 4.3 million pumpsets are operating on electricity. The major user of electricity in India continues to be the industrial sector accounting for about 60 per cent of the electricity consumption. The dependence of agriculture on electricity has, however, also steadily increased over the years on an yearwise basis, this factor has a share of about 15 per cent in the consumption but in many areas of the coun-

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try, it has widespread influence on the management of power supply due to seasonal character of its needs. In some areas, at times, the agricultural demand may approach about 60 per cent of the total. In fact, the period variations in the magnitude and nature of demand coupled with variations in the nature and magnitude of output from generation sources on a seasonal basis is an important factor for planning of the transmission system and system operation integration in India.

Remoter locations

The hydro electric generation sources as previously discussed are now moving to remoter locations. At the same time in the context of overall planning for optimised generation larger centralised thermal generating stations and a few nuclear power plants are also coming up. Pit-head thermal generation has been found to be a very attractive proposition and a number of large super thermal stations under central ownership are being developed from the consideration of regional supply. The unit sizes of thermal stations are steadily being increased to derive economics of scale. Presently, 200 mw units have become the commonly adopted size for thermal power plants in the major power regions and the first generation 500 mw units are presently under installation. The power systems in the country have definitely graduated from independent, radial systems to complex integrated system at the state levels and strong regional grids are emerging in all the five power regions of the country.

In the further development of the grid systems, the need to build up strong regional grids to promote integrated operation at the regional level and to enable transfer of power in bulk from larger plants would form a central consideration. Transmission systems have to be viewed to serve the several vital system needs, viz., delivering power from generation sources to consumption centres, linking power plants and inter-connecting power systems. These have to have the capability of dealing with the periodic and seasonal variations in the patterns of active and reactive power flows caused by variations at the generation sources and the load demands. The historically evolved transmission network development under highly different guiding criteria naturally shows some weaknesses and strains in the newer context. There is a need for rapid and intensive look at additions and future augmentation required keeping in view the accelerating pace of power generation programme. Thus the Sixth Plan currently in progress envisages addition of about 29,900 mw which added to the existing capacity would raise the installed generating capacity in the

country to nearly 50,000 mw by 1984-85. The capacity growth in the subsequent period would be on a still larger scale.

Appropriate responses

The present programme in transmission system development in the country, if drastically summarised, could be said as that of building an overlay of 400 kv transmission system to serve as a primary transmission net work on a regional and inter-regional basis. This will be coupled with extension of the 220 kv and 132 kv transmission system underlying this to provide the requisite coverage in terms of consumption and to some extent generation sources. It will also be necessary to analyse and fill up the gaps or make good the weaknesses in the system both at the lower voltage as well as the 400 kv level to cater to the needs for reliable and integrated system operation in a regional context.

This matter as would be appreciated is a dynamic one calling for a continuum of studies. A corollary is that a standing mechanism is needed for carrying out this work on a continuous basis. The focal point for this work is provided by the Central Electricity Authority for a view at the national level. This is linked and integrated with the views at the state level being taken by the respective state electricity boards. With the growth of system complexity and consequent widen-

ing of aspects for ensuring the reliability, more intensive studies and techniques get involved. Simultaneously there is a need for optimising and economising in the costs of the transmission system and maximising the capacities of its elements as also providing for appropriate responses in abnormal conditions.

Conclusion

India has made noteworthy progress in developing its power generation and supply facilities in past three and half decades, the average growth rate of installed capacity amounting to 9.5 per cent per year. The progress has been comparably good in the development of hydro electric resources and the transmission systems. A technological base for design and data has also been built up in both these areas which from its very nature is much more dependent on such facilities. Newer technological inputs and systems such as for load despatch are being incorporated at appropriate stages of the system growth. India's needs for the pace of growth are, however, even more gigantic than the distinctly fast pace of growth which has actually been achieved and the country is devoting its attention as to how to attain this considering technical, financial, organisational and all other related aspects.

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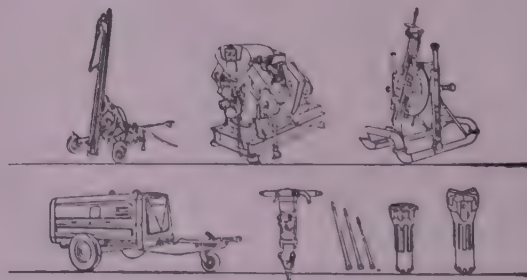
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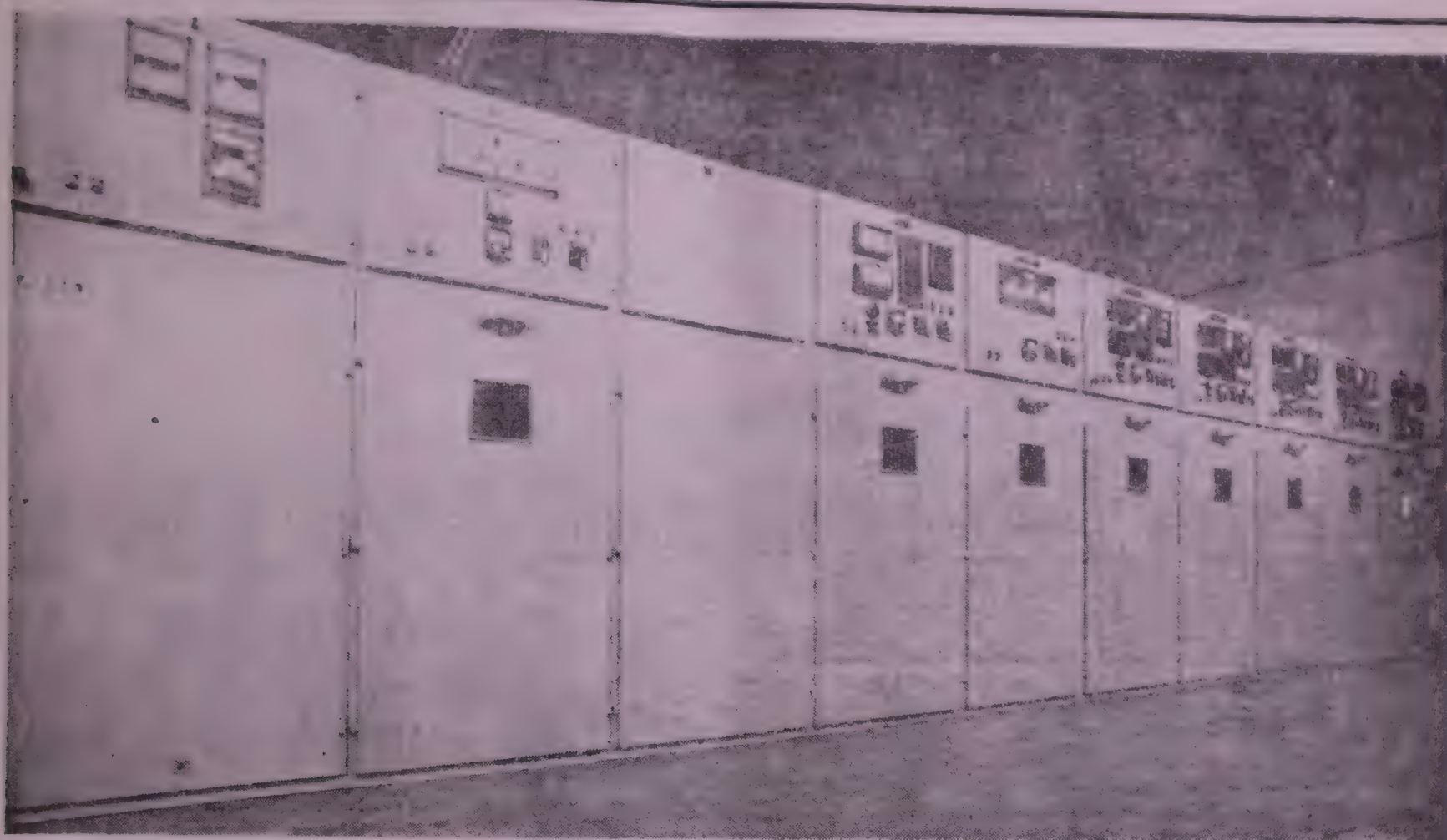
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A portion of 6.6 kv switchboard for a thermal auxiliary switchgear.

Thermal power development in India

By L. R. SURI

THE total installed capacity of power plants in the public utilities in India was 1,713 mw in 1950 comprising 1,154 mw of thermal and 559 mw of hydro. Over a period of three decades the capacity has increased 15 fold and at the end of March, 1981, the installed capacity in the public utilities was 30,271 mw comprising —

Thermal	..	17,620 mw
Hydro	..	11,791 mw
Nuclear	..	860 mw

Coal is the main fuel used in the thermal power stations and the use of gas and fuel oil is very limited. Fuel oil and gas as primary fuel, are

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used only in a few power stations located near the refineries. While the use of oil as main fuel in the thermal power stations is being cut down to the extent of availability of such residual oils which cannot be used for any other purpose, furnace oil/LDO has to be used in thermal generation for light up and shut down of the boilers and for low load stabilisation. The use of coal for thermal power generation is limited to only very low grade varieties of coal comprising mainly run of mine slack coal which cannot be used for any other purpose. Only a few power stations constructed before 1961 having stoker fired boilers, use better quality of coal to the extent of about one million tonnes per year. From 1960 onwards, power station boilers are mainly being designed to

use coal containing up to 45 per cent ash or coking coal washery middlings containing about 35 per cent ash.

Thermal plant equipment

The unit capacity of thermal power plants up to 1950 was mainly up to about 10/12.5 mw with stoker fired boilers. During the period 1951-60 units of capacity mainly 15 and 30 mw were added. These were also equipped with stoker fired boilers. About 9 units of capacity varying between 57.5 to 75 mw with pulverised fuel fired boilers were installed during this period. In the next decade 1961-70, units mainly of capacity 50 mw and above with three units of 100 mw and four units of 140 mw and one unit of 150 mw were added.

The indigenous manufacture of

power plant and equipment started in the decade 1971-80. While the manufacture of power boilers had started in the sixties and the first such boiler was commissioned in 1967, all the turbo-generators commissioned up to 1971 were imported. The indigenous manufacture started with units of 30 mw capacity, three of which were commissioned during 1971-73. These were followed by units of 60 mw, the first such unit being commissioned in 1973. From 1973-74 onwards, capacity additions were mainly with indigenous units of 100, 110 and 120 mw. The first 200 mw unit was commissioned in December 1977.

At the end of March, 1981 indigenous capacity comprised 8,960 mw out of a total of 17,620 mw.

Power plant manufacture

There are two indigenous manufacturers of large power boilers. Earlier, the boilers, in the public sector, were manufactured with Czechoslovakia collaboration. These are now being manufactured in collaboration with Combustion Engineering of USA. The turbines were earlier being manufactured in collaboration with Czechoslovakia, USSR

and the UK. From 1980 onwards these are also being manufactured in collaboration with KWU of West Germany. While turbines are being manufactured in the public sector only, 1,000 mw per year of boilers are being manufactured in the private sector in collaboration with the B & W of UK.

The present capacity for indigenous manufacture is of the order of 2,500 mw per year and is being stepped up to 3,500 mw per year from 1984 onwards.

The boiler and turbine auxiliary equipment like axial and radial fans are manufactured in the public sector in technical collaboration with West Germany, the pulverised mills with Combustion Engineering of USA, the boiler feed pumps with Weir of UK, the electrostatic precipitators with S & F of Sweden in the public sector and with Lurgi & Research Cortrell in the private sector. The rest of the power plant ancillary equipment like coal, fuel oil, and ash handling plants, water treatments, CW and other pumps, cooling towers, etc are mainly manufactured in the private sector. The various items of electrical plant and equipment are being manufactured both

in public and private sectors.

Control and instrumentation equipment together with system engineering is manufactured in the public sector by one firm, another in the state sector and three firms in the private sector.

Role of thermal power

In the planning for power, development of hydro resources is given the first preference. The exploitation of hydro resources is planned to the extent possible, in the time frame. The balance is then made up with development of thermal power. Thermal power stations take up the base load and the hydro stations, all the peaks — making sure that the entire hydro energy capability is made use of. The hydro stations are thus planned to operate on a plant load factor of 35-40 per cent and the thermal stations at about 55 per cent.

The present thermal-hydro mix is of the order of 60:40. The northern and southern regions have a good proportion of hydro capacity, the western region a fair mix and the eastern region is predominantly thermal. Thermal units have to be

Continued on page 19

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Energy-environment interface in India

By N. L. RAMANATHAN

THE Sixth Five Year Plan states: "The environment must not be considered as just another sector of national development. It should form a crucial dimension for plans and programmes in each sector." Specifically in reference to energy generation schemes, therefore, this implies that while all-out efforts would have to be made to produce and distribute power to the consumers, equal attention should be given towards the maintenance of the environmental quality. This is often a difficult task, given the circumstances prevailing in India at the moment, namely energy starvation and minimal environmental consciousness.

Practical means of bulk energy production is limited to thermal power generation using coal or oil, hydroelectric power generation or nuclear energy generation. The first is attended by environmental degradation problems at mine sites and along transportation routes, and significant air pollution and fly ash disposal problems at the power station end. The second, hydroelectricity, is accompanied by ecological disruptions in the dam site, people-displacement issues, downstream water flow and quality questions and even some uncertain climatic and health hazards. Nuclear energy technology and capability no doubt exists in India; but it is still a minor sector even now. However, nuclear energy generation, to become acceptable, would need ensured safe methods of disposal of radioactive wastes and very low probabilities of accident risks.

India is very keen to develop additional sources of energy, which, in general, are more attractive from the environmental viewpoint. The recently constituted Commission on Additional Source of Energy (CASE) is in search of not only technology for harnessing solar, wind power and biomass energy but also of means for popularising and extensively applying these forms of energy wherever appropriate.

Dr Ramanathan is Director, Department of Environment, Government of India.

The present per capita commercial energy consumption in India is only less than a tenth of the global average, reflecting the country's low level of income. The per capita use of energy of equivalent of 0.67 tonnes of coal replacement per year integrates to about 457.6 million tonnes of coal replacement. In addition, a large amount of non-commercial energy, namely animal and human energy, of which no precise estimates have been made, are also used.

Energy scene in India

Like many other developing countries, India also consumes energy in a variety of forms ranging from electricity from nuclear fission to agricultural waste and animal dung. Still, the pattern of commercial energy consumption shows a high degree of dependency on oil, which in terms of coal replacement is close to 50 per cent. In view of prevailing global oil situation in respect of available supply and prices, reduction of dependence on oil is a key element of India's energy strategy.

The total commercial energy consumed has increased five-fold in the last two and half decades or so, at an annual growth rate of 6.78 per cent. The GDP—Energy elasticity coefficient has remained stable around 1.8, a high level compared to developed countries. Firewood, agricultural wastes and animal dung, usually referred to as non-commercial energy forms, continue to occupy a substantial proportion of the total energy consumed, and is in fact, the only resort of the common man in the rural areas. Rough estimates place this share of non-commercial energy at 40-45 per cent of the total energy. This excessive use of low-efficiency fuels do have their significant environmental impacts such as progressive denudation of forests and vegetative cover, with consequent soil erosion and diversion of organic soil fertilisers to domestic combustion purposes, necessitating the use of chemical fertilisers, and local smoke pollution.

The household sector in India is by far the largest consumer of energy, accounting for about 50 per cent of the total consumed, and this is mainly for

cooking and lighting and only marginally for space heating and cooling. Only 14 per cent of households have electric connection mainly for lighting; 5 million use kerosene for cooking, while 90 per cent depend on fire-wood, low grade coal, cow dung and vegetable wastes. This causes considerable smoke pollution in congested urban slums and many villages.

The agricultural sector still uses a small amount of commercial energy, of the order of 10 per cent, though in the last decade it is showing a rising trend, mainly for irrigation pump sets, tractors and threshing machines. Draught energy is provided overwhelmingly in this sector by an estimated 88 million work animals.

The largest consumer of commercial energy is the industrial sector, accounting for 38.5 per cent of the total energy used. This percentage is rising rapidly mainly because of intensive use of electrical energy. Energy intensive metal industries and substitution of other energy forms by electricity appear to have caused this shift.

Road and rail transport dominate the transportation scene being responsible for 95 per cent of fuel-using transport. Road system is expanding faster than the rail system. Air transport is also rising slowly as also water transport, especially coastal shipping. Bullock carts, the traditional rural transport, has slightly increased from 12 to 13 million during the sixties.

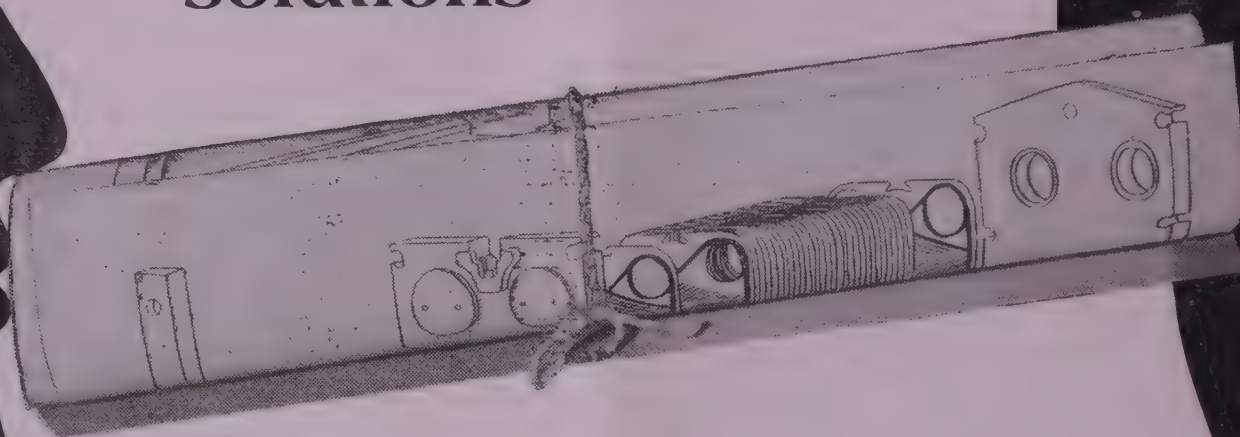
Energy resources in India

As stated earlier, a precise accounting of the total energy consumption is difficult, since almost half of it is provided by non-commercial sources. Despite this limitation, it has been estimated that in 1970-71, the total energy used was 376.7 million tonnes of coal replacement. In the past decade, this should have gone up by 12.8 per cent to 425 million tonnes of coal replacement, as a result of population rise, assuming that the per capita energy consumption remained unchanged at 0.67 tonnes of coal replacement per year.

Though the level of energy usage in India is only about 7 per cent of the global average, it has been difficult to meet the large demand which exists,

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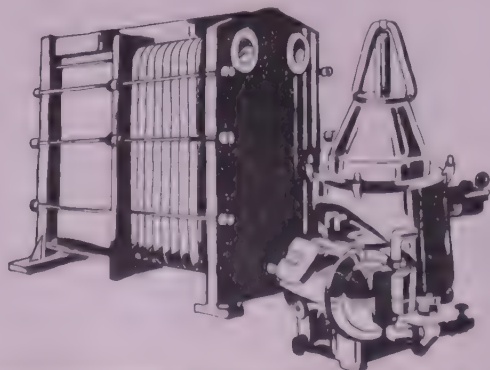


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particularly for electricity: Recurrent droughts have reduced hydropower generation, the last one in 1979 being particularly severe and there have been bottlenecks in production, transportation and distribution of coal. In combination with the greater demand for energy for irrigation in order to meet food production targets, the situation appears grave. Power cuts in domestic and industrial sectors have become the order of the day. Recently, the anomalous situation of 100 per cent power cut to industries in one state arose which, fortunately, was soon reversed. Planned load shedding is still continuing in many areas of India even now.

India continues to import most of the oil it uses, and recent increases in the cost of oil have had a substantial effect on economic growth. In spite of promising oil discoveries such as the Bombay High field, domestic oil production is unlikely to exceed 50 per cent of the current needs in the near future.

Coal resources in India are vast, but their geographical distribution is extremely uneven. 75 per cent of the deposits are concentrated in the eastern region. Transportation of coal over long distances has posed great problems in recent years.

India is endowed with good hydroelectric potential, but only 20 per cent has been harnessed until now. However, a significant 30 per cent of the untapped sources are in an accessible parts of N. E. India. Further the periodic failure of the monsoon greatly reduces dependability on these sources. An estimate places the under utilisation of hydroelectric stations as high as 50 per cent and transmission and distribution losses at 18-20 per cent.

It has been estimated that the reserves of coking coal are adequate to meet the needs of the steel industry for 50 years. Steam coal reserves are expected to be sufficient for 150 years or more.

India plans massive investments on power development under the successive Five-Year Plans, since electricity is a crucial input for productive economic activity. In the current Five Year Plan period, the power generating capacity is being raised from about 26,000 mw to nearly 44,000 mw, with matching investments in transmission and distribution. The total investment on power is expected to be of the order of about US \$ 19 billion, which is about 22 per cent of the entire public sector outlay planned. With only a modest increase projected for nuclear power, a two pronged strategy of increased exploitation of hydro potential and indigenous resources of coal is being adopted. At present, of the total installed capacity for power generation in India, 58 per cent comes from thermal sources, 41 per cent from hydro and less than 1

per cent from the development of nuclear energy. An analysis of the sector-wise energy consumption in India reveals that the largest consumption is the rural domestic sector (57.4 per cent), followed by industry (22.4 per cent) and transportation (10.4 per cent). The energy consumption in the agricultural sector was 2 per cent in 1974 according to the Fuel Policy Committee Report, but has increased tremendously since. According to a study conducted by the National Council for Applied Economic Research for the Department of Science and Technology, the rural energy consumption in Northern India was predominantly dependent on non-commercial sources which the villages collected by forging.

Environmental concerns related to energy projects

As mentioned earlier, about half of the total use of energy in India is supplied by wood, animal and agriculture wastes. The large-scale use of non-commercial fuels in an inefficient manner such as burning is undesirable not only from environmental considerations but also from the economic point of view. The excessive use of firewood has led to deforestation, with consequent results of soil erosion and desertification. The use of cowdung as fuel precludes it from use as valuable organic manure.

Both hydro and thermal power projects have pronounced environmental impacts. Of the two, the ecological implications of hydroelectric projects are far more complex and less understood. In case of the thermal plants the problem relates to pollution both at the resource extraction stage as well as at the thermal power generation stage.

Hydroelectric power projects

The National Committee on Environmental Planning and Coordination (NCEPC), based in the Department of Science and Technology, Government of India, functions as the nodal ministry for all matters related to environmental planning. It has addressed itself to the problem of environmental considerations in energy planning. The NCEPC has formulated guidelines for environmental assessments which are to be carried out at the formulation stage of multipurpose river valley projects. The intention is that even while examining the feasibility of new hydro-irrigation projects, the environmental aspects are fully taken into account and the cost-benefit evaluated. Following this recommendation, an Environmental Appraisal Committee has been set up in the department. This committee, on which the concerned ministries and specialised agencies of the government as well as technical experts are represented, organises the scrutiny of the project proposals from the environ-

mental angle. Wherever necessary, an expert team of the committee makes visits to the project area to collect information and make appropriate studies.

Thermal power projects

Coming to the question of thermal power generation in India, it can be observed that the bulk of the thermal power generation is based on coal. While most of the generating stations established in the initial years of power development were located close to the load centres, in recent times large thermal power plants are also being built near the pitheads. All thermal power projects are referred to the department for clearance from the environmental angle. The department has issued environmental guidelines and appropriate questionnaires for the guidance of the project authorities. Feasibility reports for thermal power plants now include a section on environmental measures. The department has scrutinised over 50 such proposals in the recent past. The Environmental Appraisal Committee for thermal power projects is to review the experience and update the guidelines in the near future.

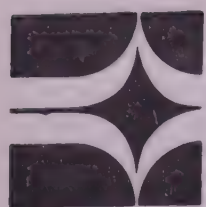
Environmental legislation on air quality

India has only this year adopted a national Air (Prevention and Control of Pollution) Act, 1981. This Act casts the authority to implement the provisions of this Act with the Central and State Boards for the Prevention and Control of Water Pollution set up under a similar Act in 1974. These boards are currently gearing themselves up technically and administratively to enforce the provisions of the Act. The boards are to issue consent to polluting industries and others for atmospheric emissions. For this purpose, they are to lay down both emission standards and ambient air quality standards, which are yet to be developed, publicised and adopted.

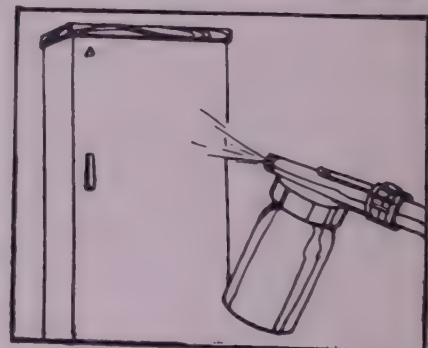
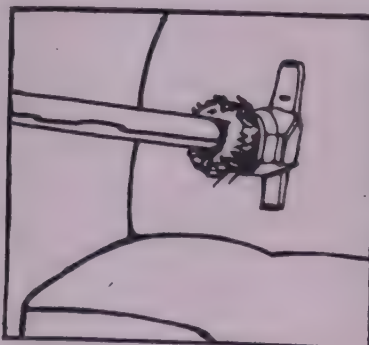
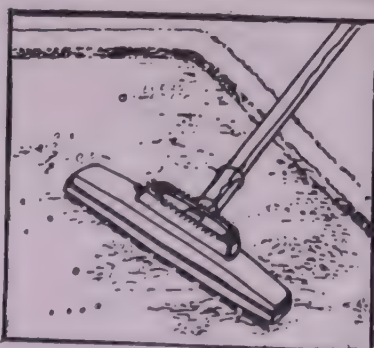
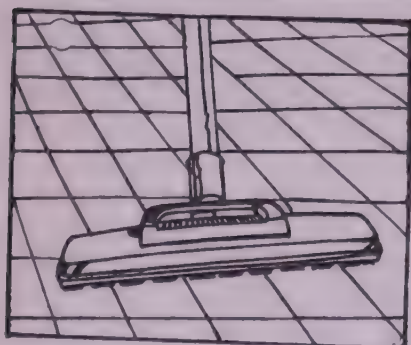
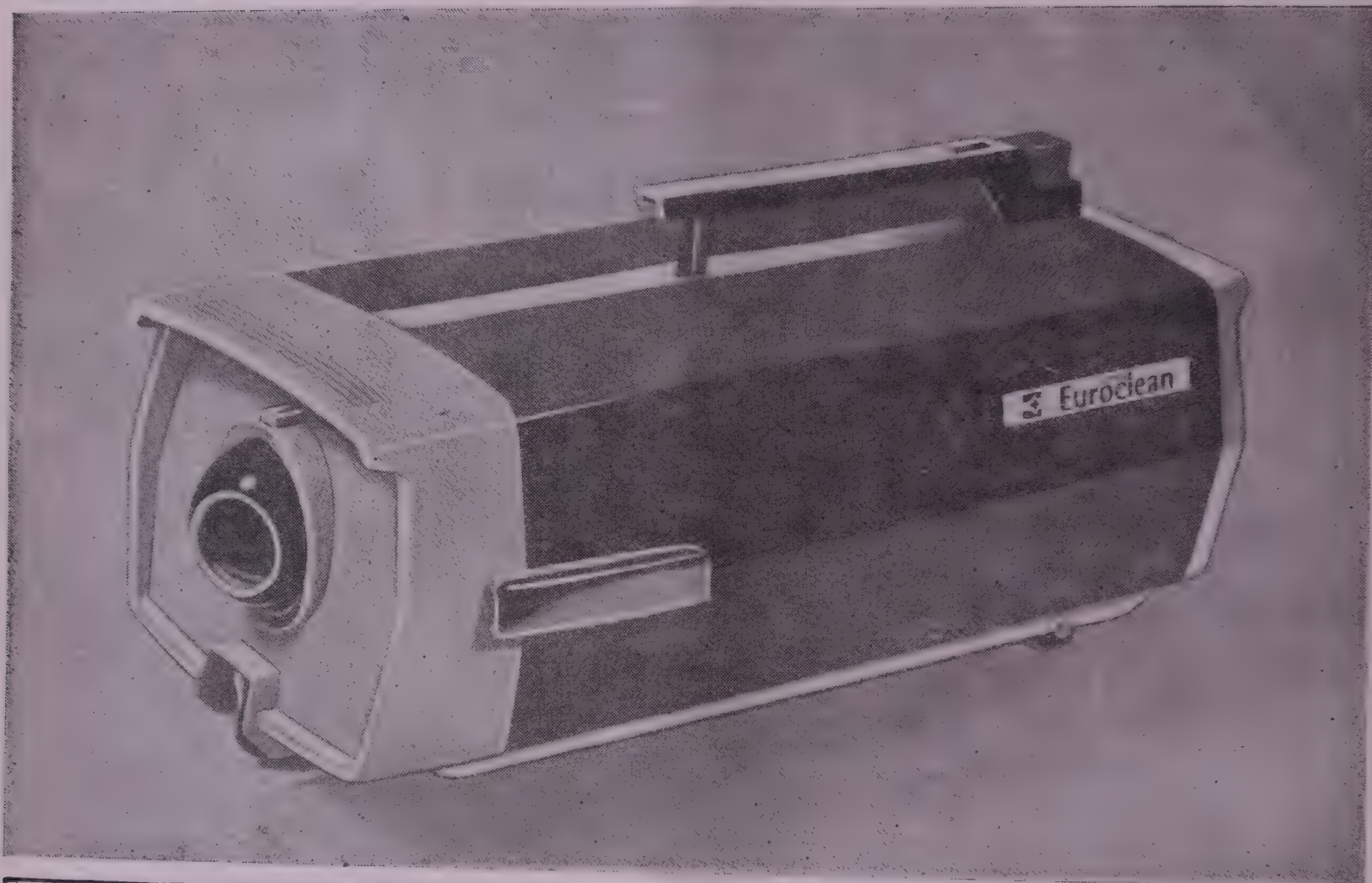
The Indian Standards Institution, which is responsible for developing and recommending standards specifications in this country, including those for environmental quality, has proposed draft Indian Standards for ambient air quality in respect of sulphur dioxide and particulate matter. Before adaption by the appropriate Technical Committee, these proposed standards are presently in wide circulation for eliciting comments from experts and users.

Air pollution control and economic aspects

Experience in air pollution control is also very limited in India. Obviously, no cost-benefit studies or economic analyses have been performed. Fear is expressed that air pollution control may prove to be inordinately expensive to achieve, though there are no substantive figures



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to support this oft-expressed fear. It may be that, when a power station or industry which has been in existence for some years goes in for air pollution control, the costs may be disproportionately high and unattractive. On the other hand, air pollution control is now insisted upon as a pre-requisite for all new thermal power projects and the cost of air pollution equipment required to be incorporated in the project costs. Without this guarantee, clearance to install the plant would not be accorded by Central Electricity Authority, in consultation with the Department of Environment. It is estimated that the cost of air pollution control in new thermal power stations would not exceed 3 per cent of the total investment in the project.

Mathura refinery and Taj Mahal

The siting of an oil refinery with an installed capacity for refining 6 million tonnes of sweet crude per year, at Mathura, about 40 km upwind of the famous monument Taj Mahal, at Agra, has become a controversial public issue. The studies which have been undertaken show that the sulphur dioxide levels in Agra city itself may be significant to the monuments. The main sources of pollution in Agra are: two ancient coal-fired thermal power stations which together generate less than 10 mw, the steam locomotives at the railway shunting yards in Agra and the many small and medium foundries using traditional cupolas. The average sulphur dioxide concentration at Agra from these sources has been estimated to be less than 20/ug/m. In comparison, the contribution from the proposed refinery, after incorporating the best practicable technology for emission controls and use of low sulphur diesel fuel in the power generation unit, would in the worst of meteorological situations, contribute less than 1/ug/m at Agra.

The Government of India has studied this situation from all aspects and set up a high power committee to oversee the expeditious implementation of stipulated recommendation for reduction of the pollution levels at Agra in order to protect the marble and sandstone in the monuments. These recommendations include, closing down the thermal power station and connecting Agra to the power grid, conversion of the steam locomotives into diesel locomotives in the shunting yards, relocation of foundries in an area down wind of the Taj Mahal or outside the zone of influence and enforcing appropriate measures of pollution control simultaneously. Studies have been initiated to determine the effect of pollutant gases on the marble and sandstone. It is also proposed to establish air pollution monitoring stations between the refinery and Agra, and in Agra City itself, in order to have continuous moni-

toring of the air pollution levels. The Government also proposes to take any additional steps necessary for protecting the monuments from the adverse impacts, if found necessary.

The thermal power stations in Agra have been closed down and conversion of railway shunting yards to diesel operation completed earlier this year, monitoring of ambient air quality in Agra and between the refinery and Agra has been initiated. The data is being reviewed for detecting the reduction of pollution levels as a result of stopping the operation the major coal users, namely the power stations and the railways. A tree belt around the Taj is being planned and raised. The problems of foundries is being approached from two directions. It is proposed to develop a site for foundries away from Agra and induce them to shift. For those foundries, which do not opt to shift, a package of technological improvement schemes, including more efficient cupola design, fuel substitution, improved work and house-keeping practices are being developed and evaluated. In addition a geographical zone around Agra, where new polluting industries are banned and where other less polluting industries would be permitted only after pollution control measures are installed, has been identified and notified.

Recent results from air quality monitoring in Agra, show that the sulphur dioxide levels at the Taj Mahal have appreciably reduced to a third of the ave-

rage levels observed prior to closing down the power stations and dieselisation of the railway yards. The monthly average sulphur dioxide levels recently reported by the monitoring station at the Taj Mahal is between 3-5 micrograms per cubic metre.

In the refinery itself very elaborate air pollution control measures are being incorporated. After the refinery goes into stream later this year, a reassessment is to be made in order to decide whether further control measures are necessary. It is to be observed that the unfortunate siting of the refinery upwind of a sensitive target like Taj Mahal, has, perhaps, necessitated extremely stringent pollution control measures and a higher cost for the same has had to be incurred.

Conclusion

India has realised the vital importance of linking energy and environmental policies, without conflict with each other. The present efforts are to incorporate environmental safeguards into energy projects at the planning stage itself. This is sought by (i) environmental appraisal of all such projects by a committee of experts, and by adopting their recommendation for environmental protection; and (ii) improvement and precision in the methodology for environmental assessment, and establishment of institutional machinery for monitoring the environmental goals in so far as energy projects are concerned.

Thermal power development in India

Concluded from page 14

backed down during night periods to loads sometimes even below 60 per cent and thus necessitating use of oil for flame stabilisation. In time to come the older, small and medium capacity units will have to do two-shift operation.

Future developments

A 15-year perspective programme for power development has been prepared up to the year 1995. The present 6th Five-Year Plan (1980-85) forms the first lap during which 19,666 mw capacity will be added as under:

Thermal	..	14,208 mw
Hydro	..	4,768 mw
Nuclear	..	690 mw

The capacity additions will be mainly by units of 200 mw size. At

present 21 units of this capacity are operating and 44 units will be added up to 1984-85. One unit of 500 mw is also scheduled for commissioning in 1983.

During the next 5-year period (1985-90), capacity additions of the order of 28,000 mw are proposed comprising hydro and thermal capacity in equal proportion. These additions will also be mainly by 200 mw units with about 15 units of 500 mw. In the period 1990-95 the emphasis for mainly developing the hydro resources to the maximum extent will continue and thermal and nuclear additions will make up the gap. A shelf of thermal projects has been prepared for this purpose. The additions are likely to be of the order of 35,000 mw with about 60 per cent of the capacity being hydro and 40 per cent thermal and nuclear.

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LETTERS

Should milk prices be raised?

SIR — Let me, at the outset, congratulate the Government Maharashtra for taking a firm and definite stand on the question of a further hike in milk prices demanded by the Milk Producers' Sanghatana. Consumers cannot, in all conscience, pay a higher price than what they are paying now.

Now, the questions to ask are: Are the prevailing prices of milk to the consumer not high enough already? Is there a need to raise these prices further? As champions of the milk producers, the spokesmen of the Sanghatana perhaps think that they are right in pressing for an increase in the price of milk. But, in doing so, they must not forget that the milk prices the consumers in Maharashtra pay have been continually increased up to a point beyond which it would be almost impossible to bear. Even the prevailing prices are already proving to be an oppressive burden on consumers, especially on the older people who have retired from active service.

What is not quite understandable, however, is that Mr. Kurien, chairman of the National Dairy Development Board, should have come forward to support the demand for a further increase in milk prices to benefit the producers. On the basis of his experience of purchasing and selling milk, Mr V.L. Mehta of the Vimla Gram Seva Samaj Trust, Ahmedabad, categorically declared that there was no justification for the producers' demand for an increased price; even if this demand is conceded, it need not necessarily be accompanied by an increase in the price of milk to the consumer. In other words, Mr Mehta suggested that the Ahmedabad Municipal Corporation and the Government of Gujarat might take a leaf out of the example of the Maharashtra Government and subsidise the "consumer price" of milk. It may be added here that the Vimla Gram Seva Samaj Trust is even today able to market milk at a lower price than the Federation of the Gujarat State Milk Producers' Organisations even after paying to the producer a higher price (Rs 50 per kilofat as against Rs 46 per kilofat by Sardar Dairy and the Federation of the Gujarat State Milk Producers' Organisations, respectively).

V. Murthy

BOMBAY

Textile strike

SIR — I have read Mr D.B. Mahatme's article "Balance Sheet of Textile Strike" (*Commerce*, May 22, 1982), only recently.

I am surprised that the author does not say a word about the effect of the strike on cloth prices and the consumer. May I ask him why has he ignored this aspect of the problem?

And he does not tell us how the impasse can be resolved. He is a great healer, they say. Five and a half months have passed, but there is no solution, no healing touch. Is there any parallel example of a strike being thus ignored in a democracy? Is the economy being allowed to suffer? And this is the Productivity Year! Where have all our Ministers of Labour, Industry, Finance and Planning gone? Or have they stopped listening and hearing all that is going on in Bombay?

Ashok Trikha

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STATEMENT OF POSITION

31st December, 1981
Rs.

5,00,00,000
8,50,00,000
2289,48,69,534
95,80,27,245
29,16,42,465
163,79,15,834
1,53,13,377
136,40,77,905

25,00,000
2729,93,46,360

385,28,70,832
24,05,12,000
487,31,55,451
1443,37,78,333
163,79,15,834
136,40,77,905
4,57,94,673
8,49,57,657
76,62,83,675
2729,93,46,360

706
268
234
167

1375

9

1384

Capital: Paid-up.
Reserve Fund
Deposits
Due to Banks and Correspondents
Bills Payable
Bills for Collection
Branch Adjustments, etc.
Acceptances for customers
PROFIT & LOSS ACCOUNT
2,40,70,472 Profit for the year 2,27,71,998
Less: Provision for
1,55,70,472 Bonus 1,27,59,309
85,00,000 1,00,12,689
50,00,000 Less: Transfer to Reserve Fund 50,00,000
10,00,000 Investment Reserve 25,00,000
Balance to be transferred to Central Government
TOTAL

ASSETS

Cash in hand and with Banks
Money at Call and Short Notice
Investments in Govt. and other Securities,
Shares, Debentures etc.
Loans, Advances and Bills Discounted and Purchased
Bills Receivable
Constituents' Liabilities for Acceptances
Premises
Furniture and Fixtures
Other Assets, etc.
TOTAL

NUMBER OF BRANCHES

In India

Outside India

TOTAL

Rural 614
Semi-Urban 259
Urban 228
Metropolitan 166

31st December, 1980
Rs.

5,00,00,000
8,00,00,000
1905,41,23,724
67,52,42,096
25,43,26,044
132,60,38,615
11,99,18,326
147,60,33,395

25,12,689
2303,81,94,889

377,96,35,557
27,15,40,700
424,15,30,512
1125,41,13,968
132,60,38,615
147,60,33,395
3,87,38,730
7,24,38,309
57,81,25,103
2303,81,94,889

1267
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1276

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COMMERCE

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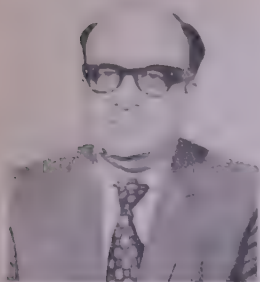
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Mr S. Krishnaswami, managing director, Associated Cement Companies Ltd, has been re-elected president of the Cement Manufacturers' Association for the year 1982. Mr V.L. Dutt, chairman and managing director, K. C. P. Ltd, was re-elected vice-president.

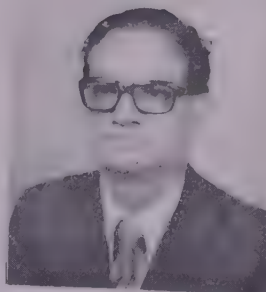
Dr K. K. S. Chauhan has joined the Indian Farmers Fertiliser Cooperative Ltd as the marketing director. Prior to this, he was working as the zonal manager for Food Corporation of India (south zone).



Mr S. Kumarasundaram has been appointed chairman of the Indian advisory board of The Chartered Bank. Mr Kumarasundaram was till recently the joint managing director of Industrial Credit and Investment Corporation of India Ltd.

PEOPLE

Mr Jayantibhai A. Patel has been elected president of the Bombay Industries Association.



Mr Rohit M. Mehta has been elected first vice-president of the Association of Merchants and Manufacturers of Textile Stores and Machinery (India) for 1982-83.

Mr Roger C. B. Pereira, chief executive and director of Shilpi Advertising Ltd, has been re-elected to the board of directors of the International Advertising Association, New York.

Mr R. M. Dujodwala has been elected chairman and Messrs P. M. Kavadia and Mr Vijay Kalantri vice-chairmen of the All India Manufacturers' Organisation (Maharashtra state board).

Mr Navin H. Shah has been re-elected president of the All India Non-ferrous Metal Industries Association for the current year.

Mr Ghanshyamdas Binani and Mr Himat J. Doshi have been elected, respectively, president and vice-president of the All-India Association of Industries for 1982-83.

THE WEEK

The Kuwait Fund for Arab Economic Development has given India a soft loan of 14.3 million Kuwaiti dinars for the Thal-Vaishet fertiliser project in Maharashtra.

The State Bank of India has become a shareholder in the Banco Latino Americano De Exportaciones, a leading regional development bank in Panama.

The Gujarat Government has asked the World Bank for aid of Rs 2,700 crores for the Narmada irrigation project.

The Electronics Trade and Technology Development Corporation has received orders for the import of 60,000 colour TV component kits from overseas manufacturers.

The Industrial Credit and Investment Corporation of India (ICICI) is entering into industrial leasing and will also undertake factoring, computer work, industrial projections and industrial consultancy services. ICICI has also agreed to provide institutional assistance to National Development Bank of Jamaica Ltd.

India and the European Economic Community will commence the second round of negotiations on garment exports in September.

The Reserve Bank of India has further liberalised investment opportunities for non-resident Indians by permitting them to invest in the shares of Indian companies up to one per cent of the paid up equity capital of the company, irrespective of the amount involved.

The Union Government has decided to amend the Industries (Development and Regulation) Act to make it more realistic.

The World Bank is likely to give India a loan of \$ 165 million for an oil exploration programme in the Krishna Godavari basin.

Indian Railways will import 80 traction motors from Japan to meet requirements of Bombay's suburban service rakes.

Wholesale price index

At 287.2, the latest available wholesale price index for all commodities for the week ended June 26, 1982 showed a rise of 0.5 per cent over the preceding week and 2.3 per cent over the year.

Money comfortable

Conditions in the Bombay short-term money market were comfortable as of Monday (July 12, 1982). In the inter-bank call money section, both notified and commercial funds were renewed at four per cent. Fresh money was transacted at four per cent. The market closed at four per cent.

Don't kill the goose that lays the golden eggs

IS there no liquidity problem in the banking industry? Are the banks themselves facing financial stringency? Is it a fact or a myth created by bankers? When industry complains that banks are pleading inability to lend funds for normal trading and business activities is it just a propaganda or a fact of life? It seems that the Union Finance Minister, Mr Pranab Kumar Mukherji, is of the view that there is no serious liquidity problem and that a sense of panic has been created by the bankers themselves. At a recent meeting of the chief executives of the nationalised banks in New Delhi, the Union Finance Minister is reported to have asked the chairmen of the banks to erase this impression. The Finance Minister also assured business and industry that production would not be allowed to suffer for want of funds.

This is all right as far as the government's intentions are concerned. To say that bankers have been creating a sense of panic is to say that there is no problem but that inefficient bank chairmen have created it. What are the facts? During the first three months of the current financial year (between March 26 and June 25, 1982), aggregate deposits of scheduled commercial banks increased by Rs 1,675 crores to Rs 45,425 crores (3.8 per cent) as against an increase of Rs 2,561 crores to Rs 40,549 crores (6.7 per cent) during the corresponding months of 1981-82. Because of this tight resources position of banks, non-food credit during this period contracted by Rs 304 crores (1.1 per cent) as against the sharp expansion of Rs 737 crores (3.1 per cent) during the corresponding period last year.

At one stage an almost unprecedented development took place. Aggregate deposits recorded an absolute decline of Rs 141 crores between December 25, 1981 and April 2, 1982 as against a rise of more than Rs 1,200 crores during the corresponding period in the preceding year. As a result, most of the banks were unable to conform to the statutory liquidity ratio and cash reserve ratio requirements as stipulated by the Reserve Bank of India. Almost the entire banking system had been in default since December 1981 in this respect.

It was this serious situation which prompted the Reserve Bank of India to reduce the cash reserve ratio of banks from 7.75 per cent to 7.25 per cent effective from April 9, 1982. At the same time the extent of refinance of food credit was raised from 30 per cent to 50 per cent beyond Rs 2,200 crores and beyond Rs 2,800 crores the refinance was raised to 100 per cent. Following the representation from business and industry, again in June 1982 the cash reserve ratio was further reduced by 0.25 per cent point to 7 per cent and the refinance facility for food credit was further liberalised. The eligible limit of food credit for 100 per cent refinance was reduced to Rs 2,600 crores.

So the Union Finance Minister was not well advised in making a statement about bankers which would demoralise the bank executives facing serious financial problems not of their own making. On the one hand, the rate of growth in bank deposits has slowed down, while on the other the demand for credit has been rising. Whether it is the sick textile industry or surplus sugar and fertiliser industries or the 20-point programme, the draft is made on the resources of the banks which are in a precarious financial position. While the credit-shopping list of the society is lengthening, the government has been launching schemes which result in the diversion of funds from the banking sector to other saving schemes. Who would like to invest in banks when far more attractive Capital Investment Bonds and Social Security Certificates Scheme are available to investors? While promulgating these schemes to mobilise resources the government should have given a thought to its impact on the resources of the banking industry. As a matter of fact, before the government announced these schemes, interest rate on saving deposits (91 days and above but less than six months) should have been increased by at least two per cent to seven per cent. It is said that bankers had pleaded for the increase in the saving deposit rate, but it has not been done. Similar increase should also have been announced for time deposits if they are to compete with other attractive avenues of investment such as convertible debentures, company deposits and Unit Trust schemes.

So the government should give immediate thought to the interest rate structure of the banks. It should also restore the attractiveness of the financial assets as represented by bank deposits. Unless this is done, the banking industry would continue to remain in the doldrums. Having done this the government should look at the medium-term problem of the resources of the banking industry.

The time has also arrived to appoint a working group on banking resources under the chairmanship of the Reserve Bank Governor. This group should examine in detail the resources position of the banks for the remaining period of the Sixth Five-Year Plan. It should also quantify the amount that will be required under poverty amelioration programmes. The Finance Minister had made sensible suggestion about the sick units. The proposed committee should examine whether nearly Rs 2,500 crores, which are locked up in the sick units, could partly be taken into account while computing the Statutory Liquidity Ratio of banks. The real issue is not the resources of the banks but their very viability. While nursing sick industries it should be seen that the banking industry itself may not become sick. This is the problem that the Union Finance Minister should address himself in the coming months.

Textile strike: Light in the tunnel?

THE six-month-long stalemate in the strike of 2.50 lakh textile workers in Bombay has at last been broken. Closely following on the millowners' suggestion made in the last week of June that the dispute be referred to the Industrial Tribunal for arbitration, New Delhi has now announced its decision to set up a tripartite committee to consider the problems of the textile industry including the demands of the textile workers. Simultaneously the Union Labour Minister, Mr Bhagwat Jha Azad, has said that a cash advance payment of Rs 650 would be paid to every worker as well as an *ad hoc* amount of Rs 30 p.m. pending the finalisation of recommendation of the committee on house rent and conveyance allowances. The Labour Minister has given categorical assurance that no workman, who resumed work would be victimised excepting those who had indulged in intimidation and violence. In the week since this offer was made by New Delhi, Dr Datta Samant of Maharashtra Girni Kamgar Union, who leads the strike, and the All India Trade Union Congress have made public statements rejecting the offer as one adding insult to injury of the workmen who have undergone such hardship for six long months. The rejection was to be expected since Dr Samant had demanded an increase in wages ranging from Rs 250 to Rs 400 a month and a number of other concessions that would add another Rs 200 to Rs 250 p.m. to the average wage bill of a worker. But Dr Samant had been careful not to frame a charter of demands and place it before the millowners in Bombay. This was probably because he himself had realised that the demands were fantastic and that the mill industry even in this premier centre could not meet an additional yearly burden of over Rs 100 crores. For all purposes the verbal demands were to be a bargaining stand.

Dr Samant has now been given an opportunity by the Government of India to place his considered demands before the tripartite committee consisting of trade unions, industry and government and secure its verdict. The terms of the committee will be wide inasmuch as it will be called on to examine the problems of mill workers as also problems being faced by the textile mills including the urgent need to modernise the industry. Neither Dr Samant's nor AITUC's public rejection of the offer of the government and their threat to start "*Jail bharo*" (fill up the jails) agitation is intended to be taken as the final word. Even they realise that mill workers have undergone the severest hardship and that possibly the limit to their capacity to endure had been reached. Nearly 32 to 40 per cent of the workers had reportedly left the city and gone to their villages to get whatever work they could. While some of the workers might have secured temporary jobs, it was clear that a large section was on the point of starvation if not actual starvation. The rains have also failed this year and those who had gone to their native villages to engage themselves in agricultural operations would now be under compulsion to return to the city in search of their old mill jobs. Dr Samant and the labour leaders cannot avoid for long facing the reality of the situation and seizing the opportunity that New Delhi has presented to them in the form of placing their demands before the tripartite committee. The committee has also been

asked to report within a period of two months on the problem of *badli* workers and the demands of workmen for house rent and conveyance allowances and given also a short period of one year to submit its report on the wider problems of textile workers and industry. Further the government has given the assurance that the recommendations relating to workmen would be implemented in time-bound manner. While labour leaders might feel aggrieved by the small amount of cash relief and the monthly *ad hoc* amount of only Rs 30, they should not overlook the wider potential of the likely recommendations of this tripartite committee on wages and other problems of workmen and modernisation of the textile industry.

The textile industry had been passing through a difficult phase since 1981 and the present strike has crippled it. Industry spokesmen have been seriously concerned over the heavy overheads that mills have to meet at a time of stoppage of cash inflow, and the Bombay Millowners' Association has indicated that some 8 to 10 mills may not be able to start again even if the strike is over in the next few days. In such an eventuality many thousands of jobs will be lost. Some eight or nine mills have approached the State Government for permitting them to shift their units to New Bombay or the interior of Maharashtra. The Chief Minister, Mr Babasaheb Bhosale, has declared that no such shifting would be permitted and the mills would have to be located in Bombay as before. The tripartite committee could as well consider the feasibility of otherwise of shifting these mills to places nearer the homes of mill workers, a large section of which comes from Konkan. The mills have apparently calculated that from the realisation of sales of their land in Bombay city they could as well shift the machinery to New Bombay or Konkan, buy even modern machinery and to the extent possible provide residential facilities to their workers. All these calculations may not prove correct but the advisability of shifting some of the mills from the overcongested Bombay, civic amenities of which threaten to break down any day, must be closely examined.

Modernisation is also a very relevant issue in the context of demand of the workers for wages on par with the chemical and engineering industries. Some millowners openly declare that they would concede Dr Datta Samant's demands in full provided that — and this is a big 'if' — mills are allowed to be modernised and every worker looks after 80 automatic looms as in South Korea and not two looms as it happens to be the case in what is regarded as the most modernised mill in the country. The government has done well to ask the tripartite committee to take an overall view of the problems of industry as well as those of workers to arrive at an integrated picture. The government will be compelled, on its own part, after the committee submits its report, to define more clearly its objective regarding the textile policy. If it decides that the organised industry should play a comparatively minor role than handlooms and powerlooms — and many arguments can be advanced in favour of it, not the least of which is the problem of unemployment — the government must also convince the workers that they cannot expect the textile industry to pay wages on par with the chemical and engineering industries.

EDITOR'S NOTEBOOK

Vadilal Dagli

How to combat drought

FROM the behaviour of the current monsoon the people and the government should prepare themselves for unavoidable shortages in basic necessities like wheat, edible oil, pulses and perhaps milk. The situation is not alarming but it calls for an advance planning if we want to avoid the suffering to the people in both urban and rural areas and cattle in the countryside. Whenever the shadow of shortages falls in the country one immediately thinks of imports. This is understandable. It would be wise if government, with the help of a few patriotic traders, actively participates in the futures market of grain abroad. We should also start talks with grain exporting countries like the USA, Canada, Australia and Argentina. Fortunately the harvest in the United States is excellent. But with the impending massive Soviet purchases, the United States grain prices may harden and even the availability may be restricted. But there is one favourable factor. Europeans are angrily asking the United States administration as to why it has been sending grains to the Soviet Union while imposing a ban on the sale of American equipment for the gas pipeline that may be built up between Siberia and West Germany to meet the sizeable energy requirements of Western Europe. Americans recognise that this amounts to double-standard and have been murmuring that they might not enter into new contracts to sell foodgrains to the Soviet Union.

Mrs Gandhi's Washington visit at the end of this month may not be used to have a PL-480 type agreement with the United States but for a commercial contract with an element of 5 to 7 year credit. It may also be possible to arrange for a grain-for-grain agreement under which the United States may ask India after a few years to ship that amount of foodgrains to a country it wants to help. What will be the likely shortage? It is too early to say now, but the target of 143 million tonnes may not be achieved. The shortfall may be of the order of 7 to 10 million tonnes. This is a guess. The bufferstock of about 13 million tonnes may have to

be strengthened by imports. Maybe the need will be not more than five million tonnes. But one should not take any chances. Equally important is launching a programme for producing quick yielding fruits, vegetables and other edibles. The experiment was tried quite successfully during the Chinese invasion in 1962. Now our agricultural base is stronger than at that time. Particularly states like West Bengal, Rajasthan and Maharashtra should prepare district plans for "quick yielding food projects". The state governments should also be asked to prepare a detailed rabi plan which should take into consideration better utilisation of irrigation facilities, timely distribution of seeds and bringing still larger areas under high yielding varieties of foodgrains. The cold storage capacity already created should now be reserved and fully utilised for storing potatoes, apples and other fruits and vegetables.

Life in Saudi Arabia

HOW absurd is adherence to the rituals of one's religion could be seen from the amazing instructions that the authorities of Saudi Arabia issued on June 22. The Interior Ministry has issued an ordinance informing non-Muslim residents not to break fasting rules during the holy month of Ramzan. The Government announcement said that non-Muslims in Saudi Arabia should not eat, drink or smoke in public during the month of Ramzan. Companies are advised to explain to their workers and employees and also warn them of the consequences of flouting the order. What will be the punishment if non-Muslims are found to be eating, drinking water or smoking in public? Their services may be terminated and they may even be deported out of Saudi Arabia.

Germans against arms race

MORE than 100 leading German citizens including Heinrich Boll, Nobel Prize winning author, have appealed to the American people to forge a united front to put an end to the "arms race so that this world can remain a livable home for us and for our children". Recently

thousands of people demonstrated in various cities of the United States against nuclear war. Similar demonstrations were held during President Reagan's recent visit to Europe. The West German peace movement appeal is published in leading American newspapers. This is not a phoney movement like the communist peace movement which is a deceptive front of Soviet military expansionism. The West German appeal to American people *inter alia* says:

"Thirty years of the arms race have not increased our security in East and West. On the contrary, with the uninterrupted development and deployment of new weapons and with every additional step in the arms race, the danger of war rises. This also holds true for the NATO decision of December, 1979. According to that decision, Pershing II and cruise missiles will be stationed in the Federal Republic of Germany beginning in 1983, if by that time the USA and the USSR have not negotiated a limit on medium range (long-range theatre) nuclear missiles. However, experience shows that arms negotiations do not end the arms race. In spite of negotiations, the arms race continues to absorb immense amounts of money which are desperately needed to combat unemployment and to serve social needs in the industrialised world and to overcome increasing misery in the Third World. Therefore, only a decisive reversal of the present course of events can save us.

"As a first step we suggest measures for regional disarmament and a change in regional arms policies. For our defence we propose the use of only those military means which contain no potentially offensive capability and which cannot threaten the other side. For this reason as well we reject the introduction of new nuclear missiles. Nuclear, bacteriological and chemical weapons already deployed, must be removed. We stand for a nuclear-free Europe in East and West, based on the lowest level of exclusively defensive conventional armaments. Carrying out these measures would considerably lessen the danger of war."

LETTER FROM BANGLADESH

Budget for 1982-83 cuts food subsidies

From A SPECIAL CORRESPONDENT

DACCA

THE Bangladesh budget for 1982-83 has reduced direct and indirect subsidies on foodgrains sold through the public distribution system, fertilisers, irrigation equipment, electricity, petroleum products and gas, thus pushing up the sale prices of these items. This measure is in line with the recommendations made by the International Monetary Fund and some donor agencies. This is calculated to reduce the budgetary burden and the need for large borrowings from banks to finance the subsidies.

The budget is designed to be production-oriented, and aims at pulling the country out of stagflation. It provides a wide array of concessions, with tax and duty relief for savings, capital formation and investment in the private sector. Total private investment is expected to reach Taka 1,400 crores in 1982-83. (Rs 100 = Taka 232).

Total receipts in the 1982-83 budget have been placed at Taka 2,638 crores, comprising Taka 2,123 crores of tax receipts and Taka 515 crores of non-tax receipts. The relative share of tax receipts in the budget has gone up to 81 per cent from 77 per cent in the revised revenue budget for 1981-82 of Taka 2,553.81 crores. The share of non-tax receipts in the 1982-83 budget is 19 per cent compared with 23 per cent in the 1981-82 budget.

In the non-tax receipts account, profits of nationalised industries are expected to decrease to Taka 18.50 crores from Taka 26 crores in the revised budget of 1981-82. The original budget estimate for 1981-82 envisaged profits of Taka 95 crores from the nationalised sector in 1981-82.

Profits from the nationalised banking sector, including those of the Bangladesh Bank, will similarly be lower in 1982-83

at Taka 88.75 crores against Taka 111 crores in the revised budget for 1981-82. The anticipated earnings of the state railways — Bangladesh Railways — will be higher by Taka 23 crores at Taka 148 crores over earnings in the 1981-82 revised budget. About 56.5 per cent of the earnings will come from the 20 per cent hike in railway freight announced by the government earlier.

The government's earning by way of interest charges on the non-tax receipts account however will be lower at Taka 105 crores in 1982-83 against Taka 160.53 crores in the revised budget for 1981-82.

Direct taxes such as income-tax, corporation and agricultural income-tax, land revenue, stamps, non-judicial and other taxes will account for 20.5 per cent of total tax receipts in 1982-83. The new fiscal measures will bring in net additional tax receipts of Taka 117-175 crores. Of this, Taka 50 crores will be raised from customs duty and sales tax on imports, levied from the current financial year. Excise duty will contribute additional tax receipts of Taka 23 crores.

In his budget speech, the Minister of Finance and Planning, Mr A.M.A. Muhith said, total revenue expenditure in the next year's budget is estimated at Taka 2,038 crores, 10 per cent over the revised estimates. The total allocation under the heading 'unexpected expenditure' stands at Taka 200 crores, including the payment of an estimated Taka 110 crores as dearness allowance to government employees.

The Finance Minister said, the next year's food budget is primarily based on an internal procurement of 7.60 lakh tonnes of foodgrains. After taking into account the effect of various changes in procurement prices and ration sales prices, the net cash deficit in the food budget works out to Taka 188 crores. The 1982-83 budget estimates that this

deficit will be financed to the extent of Taka 85 crores through bank borrowing and to the extent of Taka 103 crores from the revenue surplus.

After providing Taka 103 crores from the revenue surplus for the partial financing of the cash deficit in the food budget and Taka 73 crores to meet the net cash outlay on the non-capital development budget, the available surplus of the non-development budget stands at Taka 424 crores. Total domestic resources available for financing the annual development programme on the basis of existing taxes stand at Taka 464 crores. An allocation of Taka 100 crores has been made for investment in the share capital of various nationalised industrial and commercial enterprises. This provision has been made to improve the debt-equity ratio of these enterprises.

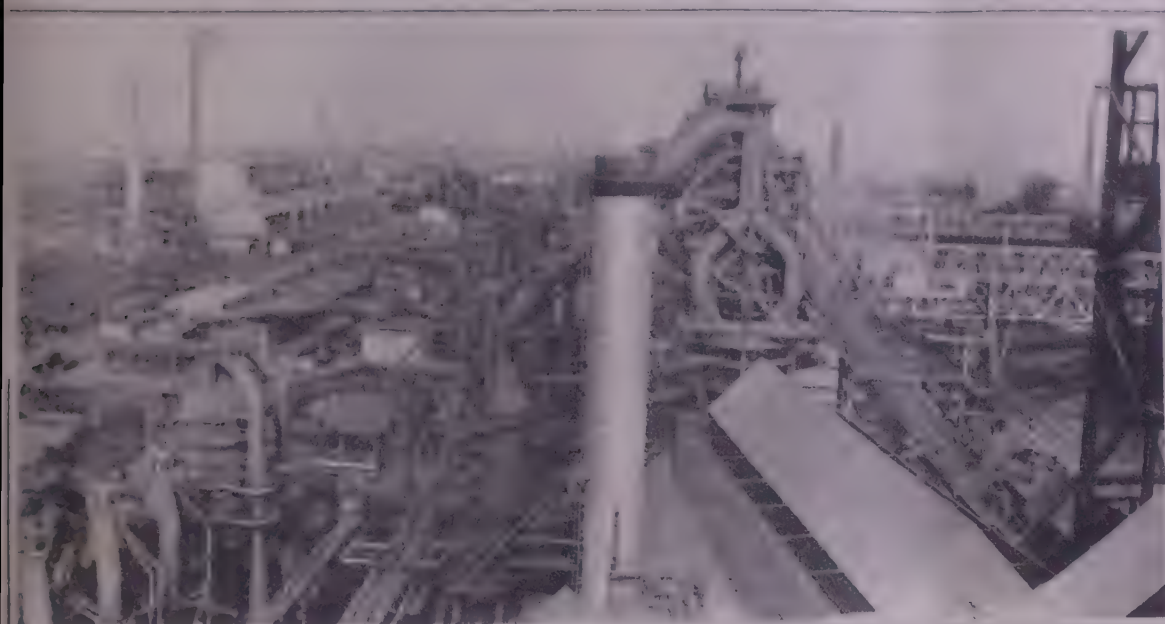
Total external resources for the annual development programme are Taka 2,106 crores including Taka 1,120 crores as project assistance, Taka 880 crores of counterpart funds of commodity assistance and Taka 106 crores out of sales proceeds of US PL 480 foodgrains received.

Mr Muhith said, the outlay on the annual development programme would be Taka 2,700 crores. Projects which have been included in the programme have a direct productive investment component of above 53 per cent. The allocation for agriculture, water resources and rural development is over 36 per cent of the programme's allocation. Special attention will be paid to rural works, the food for work programme, the power and gas sectors, and on the supply of irrigation equipment, fertilisers and seeds. Food production for the next year is targeted at 155 lakh tonnes. With a shift in investment and improved efficiency, the country hopes to achieve an overall growth rate of 6 per cent in 1982-83.

PUBLIC SECTOR: SUBSIDY AT WHAT COST?

COVER STORY

By KUMARAN POLA



Public sector plays a prominent role in building infrastructure. A general view of the government owned steel plant at Bhilai

THE public sector in the Indian economy is indeed a much maligned one. There is a torrential flow of criticism about the public sector losses. Suggestions ranging from its outright abolition to converting the public sector units into joint sector units have even been made by its critics. In fact, in all the overall evaluations, the Indian public sector has to face various odds: first, it is saddled with the habitual loss-makers in sick industries such as cotton textiles and jute textiles taken over from the private sector. The coal industry till lately was a loss-maker. Second, there are about thirty central public sector units spread far and wide over the whole spectrum of industries which have been incurring losses continuously for the last ten years. Third, there is a deliberate or inadvertent camouflaging of the profit-making star performers in the overall but perfunctory evaluations of the public sector.

Fourth, the performance appraisal of the public sector is not being done *vis-a-vis* its multiple objectives and the rate of return on investment is being used wrongly as the single indicator of the public sector performance. Fifth, the public sector has the responsibility of supporting the process of industrialisation through creating infrastructure by way of transport, communications, energy (coal, electricity, oil and gas) and intermediate goods (minerals, fertilisers and pesticides and machinery and machine tools), all of which involve

huge capital outlays and long gestation periods and which subsidise their products and services in various degrees. Finally, there is a conspicuous lack of recognition of the role of finance and a lackadaisical attitude in the implementation of the recommendations of the parliamentary committees in this respect. Analysis of

these and other aspects are very relevant to any worthwhile appraisal of the public sector performance.

X-ray on profits and losses

The aggregate of the ten years' (1970-71 to 1979-80) financial results of all the Central Government undertakings did not show any loss (Answer to Question No. 1974, Lok Sabha, 28th August, 1981). This was a result of the continuous increases in profits of profit-making enterprises. During the decade 1970-71 to 1979-80, whereas the capital employed had increased at a compound growth of 18.3 per cent per annum, the profits of the profit-making enterprises increased at 22.4 per cent and the losses of the loss-making enterprises at 23.9 per cent. In absolute terms, the net profits of the profits making companies amounted to Rs 2,684 crores between 1970-71 and 1979-80 whereas the losses of the loss-making companies were lower at Rs 2,199 crores. Such an overall assessment of the public sector performance may make the protagonists complacent. The net profits of Rs 412 crores reportedly earned by the Central public sector enterprises in 1981-82 as compared to their losses of Rs 182

Table 1:
Central Government enterprises which made profits or incurred losses during the last decade

Year	Total no. of enterprises (excluding insurance companies)	Capital employed	(Amount Rs crores)				
			Profit making enterprises including those which broke even		No. of loss making enterprises		Net profit/loss after tax
			No.	Amount	No.	Amount	Amount (4)-(6)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1970-71	87	3,606	52	75	35	(-) 78	(-) 3
1971-72	93	4,089	58	100	35	(-) 119	(-) 19
1972-73	101	4,756	67	104	34	(-) 86	18
1973-74	114	5,376	72	161	42	(-) 97	64
1974-75	120	6,627	81	322	39	(-) 138	184
1975-76	121	8,824	87	255	34	(-) 126	129
1976-77	149	10,887	93	394	56	(-) 154	240
1977-78	155	12,130	82	385	73	(-) 399	(-) 14
1978-79	159	13,969	90	425	69	(-) 465	(-) 40
1979-80	169	16,182	103	463	66	(-) 537	(-) 74
1980-81	168	18,231	93	572	75	(-) 754	(-) 182
1981-82	166	N.A.	N.A.	N.A.	N.A.	N.A.	(+) 412
Annual Average		18.3%		22.4%		23.9%	

Note: The figures of net profit and net loss for 1976-77 and 1977-78 had since been revised to Rs 184 crores and Rs 91 crores respectively.

(Source: Public Enterprises Survey, 1979-80 and earlier issues, Economic Survey 1981-82)

Table 2: Top Ten Profit Makers: 1979-80

	Net profit after tax	
	Amount (Rs crores)	As per cent of capital employed
Indian Oil Corporation Ltd	73.43	14.9
Oil & Natural Gas Commission	55.23	6.2
Bharat Heavy Electricals Ltd	34.07	5.4
Central Coalfields Ltd	31.39	10.2
Steel Authority of India Ltd.	30.23	1.5
Hindustan Petroleum Corporation Ltd	13.68	9.7
Rashtriya Chemicals and Fertilizers Ltd	11.04	7.6
Bharat Petroleum Corporation Ltd	9.77	19.2
Hindustan Zinc Ltd	7.91	5.2
Indian Dairy Corporation	7.90	6.4

Source: Public Enterprises Survey, 1979-80

crores in 1980-81 should also be heart-warming to them.

However, an examination of the industry-wise, and unit-wise analysis of the profits, losses and accumulated deficits, though disconcerting, throw some light on the postulations put forth earlier (see tables 3 to 6). The industrial units which were taken over from the private sector such as coal and cotton textile companies continued to be burdened with accumulated deficits — they appear in the list of companies which consistently incurred losses during the decade between 1970-71 and 1979-80 and also among the list of companies whose accumulated losses exceeded their paid-up capital as at the end of 1979-80. Among the lists of enterprises which incurred losses consistently during the decade 1970-71 to 1979-80 and of those with huge accumulated losses, many belong to infrastructural industries as well. For example, the enterprises belonging to transportation services, fertiliser and heavy engineering which do not price products and services on cost-plus return basis are prominent in these lists.

The evaluation of the public sector performance on the basis of their profits along the above genre may only lead one to support the critics of the public sector who demand its outright abolition or the transfer of the public sector enterprises to the private sector. That indeed is the tendency to which most of the unwary and uninformed populace have been led to.

Multiple objectives

The public sector in India has been developed in the context of the nation's continuously evolving stance on economic development. The main tenets of the country's policy on economic develop-

ment which may be termed the overall objectives of the public sector are:

- (i) balanced regional development and removal of backwardness of particular regions,
- (ii) prevention of unemployment and utilisation of capacity by taking over sick units,
- (iii) building infrastructural facilities like transportation, energy, communication and basic and intermediate goods for furthering allround economic development,
- (iv) increasing the supply of essential commodities at cheaper rates,
- (v) manufacturing items of strategic importance, and
- (vi) raising development funds through the generation of internal resources by the public sector enterprises as well as through the mobilisation of public savings.

The general objectives enumerated above indicate that the criterion of profit is secondary to the achievement of the other objectives. This is in sharp contrast to the private sector wherein the maximisation of the value of the investment by earning higher and higher profits is the overriding objective of business enterprises. The purpose of enumerating the multiple objectives is to emphasise that the appraisal of performance wherever undertaken must be with reference to the objectives to be achieved.

Appraisal of performance

Appraisal of performance in business enterprises, whether in the private sector or the public sector, is a managerial function. This involves establishing standards based on objectives, measuring performance *vis-a-vis* the standards and comparing performance to determine deviations. As per this scheme, the formulation

of internally consistent objectives for each of the public sector enterprises is of paramount significance. Such a set of verifiable objectives against which to evaluate the performance has been conspicuous by its absence in many public sector enterprises.

While addressing the seminar on "Objectives, Achievements and Prospects of Public Enterprises" on May 12, 1981 in New Delhi, the Union Minister for Railways, Mr P.C. Sethi, said that a serious factor inhibiting the growth of public sector enterprises had been the absence of an internally consistent set of objectives against which their performance could be assessed. He felt that it was necessary to set before each enterprise in unambiguous terms the commercial, economic and social aims it had to achieve during a given period of time. The Minister's lament had come more than a decade after the Administrative Reforms Commission in its Report on "Public Sector Undertakings" had recommended: "Government should make a comprehensive and clear statement on the objectives and obligations of public undertakings. This statement should lay down the principles for determining the precise financial and economic obligations of the enterprises in matters such as creation of various reserves, the extent to which enterprises should undertake the responsibilities of self-financing, the anticipated returns on capital employed, and the basis for working out national wage structures and pricing policies. These governing principles should be formulated in consultation with the public enterprises. There should also be a regular consultation between the Government and public enterprises to review the extent to which they can expect additional finance from Government for their capital requirements and the amount of surplus that are expected from the undertakings. (Recommendation No. 30 of the Administrative Reforms Commission). The recommendation was accepted by Government in toto and a general directive was issued in November 1970.

The tremendous importance given to objectives in the management practice of business firms has led to the well known practice called "Management by Objectives (MBO)." Under this system, each manager, each department, each division (or whatever segments do exist in business enterprises) has predetermined an measurable objectives which each of them is expected to achieve within a given

period and for which each of them is fully responsible. Each of them and the entire enterprise can then be evaluated as to the achievement of the predetermined objectives. In the context of the performance appraisal of the public sector, adoption of a suitable variation of MBO which emphasises accomplishment compatible with objectives is strongly called for.

Objectives are important as they provide a basis for planning, policies and procedures. Objectives lead to a better understanding of what the enterprise is attempting to achieve and give meaning and direction to the employees. They facilitate coordinated behaviour of the various groups in an enterprise so that all of them move in the same direction as the objectives are being established and communicated. Objectives constitute the standards for the overall control of the enterprise and for the measurement of the overall performance of the individuals concerned. Objectives, in addition, provide motivation to the employees to direct their energies towards the achievement of predetermined goals. Objectives also give direction to the management of the enterprise and force it to think ahead while establishing objectives.

Return on Investment

The non-commercial objectives of the public sector (see page 73) act as constraints on the achievement of their commercial objectives regarding costing, pricing and rate of returns. In addition, the various controls exercised by the government and parliamentary committees, while laying down the financial framework of their operations, also act as constraints. The responsibility of the public sector enterprises is to promote the commercial objectives in the light of the constraints. As such, the public sector enterprises are neither precluded nor absolved from running themselves on business principles. For the same reason, achievement of non-commercial objectives should not become an *alibi* for the failure to achieve the commercial objectives, specially earning a reasonable rate of return on investment.

Return on investment is the most successfully used evaluation and control tool for business firms. It is a key measure of overall performance, understood easily by all concerned. Return on investment is an integrated ratio as it is computed through the multiplication of assets

Table 3 : Top Ten Loss Makers : 1979-80					2 AUG 1982
					Net loss after tax
					Amount (Rs crores)
Eastern Coalfields Ltd	..	..	..	..	84.85
Bharat Coking Coal Ltd	..	..	..	..	54.72
Fertilizer Corporation of India Ltd	..	..	..	..	48.63
Hindustan Fertilizers Corporation Ltd	..	..	..	..	34.66
Indian Iron & Steel Co. Ltd.	..	..	..	..	34.59
Heavy Engineering Corporation Ltd	..	..	..	..	34.25
Delhi Transport Corporation	..	..	..	..	17.71
Bharat Aluminium Co. Ltd	..	..	..	..	16.17
Jute Corporation of India Ltd	..	..	..	..	15.44
Air India	..	..	..	..	15.09

Source : Public Enterprises Survey, 1979-80

turnover ratio and profits as percentage of sales. As such its improvement truly reflects commercial profitability. The improvement can come from a higher percentage of profit to sales (through increased price realisations, cost reduction, etc) or a higher assets turnover (increased sales, reduced investments in fixed and/or working capital, etc). The return on investment thus focusses on the utilisation of assets and the profitability of operations. Thus it helps in measuring the efficiency of the enterprise as a whole, its major divisions and its products and services. Its significance should not be discounted in the public sector enterprises merely because there are non-commercial objectives which constrain their ability to earn profits. At the most the public sector enterprises may adjust the rates of return by incorporating the implied subsidies of achieving the non-commercial objectives.

There are already provisions for excluding the expenditure incurred on social overheads for assessing the return on investment. According to an instruc-

tion issued by the Bureau of Public Enterprises on March 5, 1969 (BPE-1 (17), Adv(F)/69), the following items of expenditure constituting social overheads could be excluded for this purpose: expenditure on township, maintenance of schools and educational facilities, provision of medical facilities over and above those which are statutorily required to be maintained by the undertakings, maintenance of dairy farms, vegetable farms, etc., provision of subsidised transport and subsidies in regard to social and cultural activities. In this connection, the observations of the Committee on Public Undertakings contained in its 49th Report (Seventh Lok Sabha) on "Management and Control Systems of Public Undertakings" presented in May 1982 is relevant: "The public sector in India should function on business principles. However, if the government desires that, in the public interest, a scheme or service should be taken over, although it involves a loss, it should make sure that a specific direction is given to the undertakings and the loss made good by

Table 4: Top Ten Accumulated Deficits					(As at the end of 1979-80)
					(Rs crores)
					Accumulated deficits
					Paid-up capital
Eastern Coalfields	..	..	..	..	253.89
Bharat Coking Coal Ltd	..	..	..	..	245.57
Heavy Engineering Corporation Ltd	..	..	..	..	204.29
Fertilizer Corporation of India	..	..	..	..	187.15
Delhi Transport Corporation	..	..	..	..	113.61
Coal India Ltd	..	..	..	..	112.89
Indian Iron & Steel Co. Ltd	..	..	..	..	95.46
Western Coalfields Ltd	..	..	..	..	91.26
Mining and Allied Machinery Corporation Ltd	..	..	..	..	79.31
Hindustan Fertilizers Corporation Ltd	..	..	..	..	58.75

Note: (-) = Nil

Source : Public Enterprises Survey, 1979-80

Table 5: Prominent units whose accumulated deficits exceed their paid-up capital
(As at the end of 1979-80)

			(Rs crores)	
			Accumulated deficits	Paid-up capital
Bharat Coking Coal Ltd	..	..	245.57	150.00
Indian Iron & Steel Company Ltd	..	..	95.46	90.83
Heavy Engineering Corporation Ltd	..	..	204.29	161.79
Central Inland and Water Transport Corporation	..	..	43.22	11.44
National Textile Corporation (MP) Ltd	..	..	42.82	17.08
National Textile Corporation (MN) Ltd	..	..	40.54	25.23
National Textile Corporation (SM) Ltd	..	..	35.11	21.53
National Textile Corporation (DPR) Ltd	..	..	18.36	9.72
Rehabilitation Industries Corporation Ltd	..	..	17.12	3.53
Cotton Corporation of India Ltd	..	..	8.90	4.00

Source: Public Enterprises Survey, 1979-80

subsidy.... About 70 per cent of the products (value-wise) manufactured by public undertakings are subject to prices administered by the government, formally or informally. Profits depend on pricing policies and costs. The guidelines issued by the Bureau of Public Enterprises in 1968 are too general and the policies ought to be spelt out in detail. Frequent changes in policy should be avoided. The prices administered by the government should allow reasonable returns to the undertakings so as to avoid needless budgetary support to them."

Pricing policy

According to the guidelines on pricing policies for public enterprises issued in 1968, so far as the enterprises which produce goods and services in competition with other domestic producers, are concerned, the normal market forces of demand and supply will operate and their products will be governed, by and large, by the competitive prices prevailing in the market. In regard to pricing policies to be adopted by enterprises which operate under monopolistic or semi-monopolistic conditions, the guidelines provide that the pricing of their products should be within the landed cost of comparable imported goods which would be the normal ceiling. Within the ceiling of the landed cost, it would be open to enterprises to have price negotiations and fix prices at suitable levels for their products which would give them a reasonable return on the capital employed. If, however, in assessing the landed cost, there are reasons to believe that the imported prices are artificially low, or in other exceptional circumstances, where our own cost of production is very high, it may be necessary to have prices higher than the landed cost. In such circum-

stances, the enterprises are advised to refer the matter to the administrative ministry concerned for examination in depth in consultation with the Ministry of Finance, Bureau of Public Enterprises, etc.

Although the guidelines are coined in general terms, the intent seems to be that the public enterprises should have a profit-oriented price policy. The price policy should subserve the objectives of rational allocation of resources in the

Table 6: Central Government enterprises which consistently incurred losses during 1970-71 to 1979-80

1. Bharat Aluminium Co Ltd
2. Bharat Refractories Ltd
3. Indian Firebricks & Insulation Co Ltd
4. Mysore Porcelains Ltd
5. Bharat Coking Coal Ltd
6. Coal India Ltd
7. Eastern Coalfields Ltd
8. Hindustan Fertilizer Corporation Ltd
9. Braithwaite & Co Ltd
10. Burn Standard Co Ltd
11. Bharat Pumps & Compressors Ltd
12. Central Electronics Ltd
13. Radio & Electricals Manufacturing Co Ltd
14. Cochin Shipyard Ltd
15. Scooters India Ltd
16. Artificial Limbs Manufacturing Co Ltd
17. Bharat Ophthalmic Glass Ltd (BOGL)
18. Rehabilitation Industries Corporation Ltd
19. Tannery & Footwear Corporation
20. Banana & Fruit Development Corporation
21. National Textile Corporation (DPR) Ltd
22. National Textile Corporation (MP) Ltd
23. National Textile Corporation (MN) Ltd
24. National Textile Corporation (SM) Ltd
25. National Textile Corporation (UP) Ltd
26. National Textile Corporation (WB, Bihar A.O) Ltd
27. Delhi Transport Corporation
28. Indian Road Construction Corporation
29. Fertilizer Planning & Development Corporation
30. Trade Fair Authority of India
31. Western Coalfields Ltd

Source: Answer to Unstarred Question No 1974, in Lok Sabha on 28th August, 1981

economy, generation of surpluses for further investment and optimal utilisation of resources, specially production capacities. If for any reason pricing policy is the direct cause of loss, the government should subsidise the enterprises concerned. If pricing is governed by the fulfilment of a social purpose, then also the difference must be made good by government subsidies. This approach is required so that losses and reductions in profits caused by other causes such as corruption, inefficiency and waste do not remain concealed.

Role of finance function

The nucleus to the problem of making the public sector enterprises amenable to profit-making is the setting up of a full-fledged finance division manned by competent and qualified personnel. The finance division's responsibilities, as laid down by the Bureau of Public Enterprises through the guideline pursuant to the recommendation in the Fifteenth Report of the Committee on Public Undertakings (Fourth Lok Sabha) on Financial Management in Public Undertakings, should *inter alia* include:

- (i) determining the financial resources required to meet the company's operating programme,
- (ii) forecasting how much of these requirements should be met by internal generation of funds by the company and how much will have to be obtained outside the firm,
- (iii) developing the plans to obtain the external funds needed,
- (iv) establishing and maintaining a system of financial control governing the allocation of funds and
- (v) formulating programmes to provide the most effective profit-volume cost relationship.

In most cases, the recommendations of the parliamentary committees are merely brought to the notice of the public enterprises through the guidelines issued by the Bureau of Public Enterprises. There does not exist an effective system of follow-up to implement them. For instance, recommendation No. 1 contained in the Report on Finance

Management in Public Undertakings cited above for the preparation of profit and loss and balance sheets every quarter, although brought to the notice of the enterprises as early as in March 1968, remained largely unimplemented until 1981 when the issue was raised again. The fate of the other recommendations of this valuable report is also not different.

Subsidising public sector losses

The public sector has indeed perform-

ed extremely well in the matter of building up infrastructural industries such as transport, communication, energy and intermediate goods. It has also stepped in successfully to take over sick units in engineering, coal, cotton textile and jute textile industries specifically to prevent unemployment and to utilise production capacities. However, the administered prices in the infrastructural industries and the recurring losses in the erstwhile sick private sector units which are now

in the public sector, particularly, those of public enterprises which consistently incurred losses during the last decade, have involved heavy implied subsidisation. However, one may ask: subsidisation at whose cost? And more important, subsidisation for whose benefit?



Non-commercial objectives of public sector

"The involvement of public enterprises in meeting the social, economic and financial objectives like increased production providing adequate return on investments, protection and generation of employment, dispersal of industries in different parts of the country, development of basic and ancillary industries and assisting the process of industrialisation in the country are some of the notable features of the functioning of public enterprises in the seventies. The contribution of public enterprises in the development of the economy as a whole has also been sizable. This required wider consideration of national profitability rather than the pursuit of profit in the narrow commercial sense. This commitment to these wider socio-economic objectives of public enterprises distinguishes the role of these enterprises from their counterparts in the rest of the economy."

Employment opportunities

"Another noteworthy feature of the functioning of the public sector during this decade has been the taking over of a number of industrially sick units from the private sector with a view to protecting the employees from unemployment. The number of employees working in enterprises which have been taken over by the Government now constitute nearly around 48 per cent of the total number of employees working in Central public enterprises. As a result of rehabilitation and modernisation of some of these erstwhile sick units, additional employment has also been generated."

Balanced regional development

"One of the considerations in setting up new public enterprises/units is to

encourage, as far as possible, a balanced regional growth and to provide opportunities for economic growth to underdeveloped areas. This is the rationale for dispersal of industries to backward areas in the core sector. The dispersal of investment amongst various states as on 31-3-1972 and 31-3-1980 is indicated in the accompanying table."

Development of ancillary sector

"As a result of sustained efforts, the number of ancillary units which stood at

139 about eight years ago, has grown to more than 888 units now. Public enterprises are making purchases from over 3,840 small scale industrial units located in different parts of the country. Total purchases from ancillaries and SSI units during the year 1979-80 are to the tune of Rs 119.96 crores. The ancillary units functioning under the umbrella of the public enterprises provide employment to over 18,000 persons."

Source: Public Enterprises Survey, 1979-80, Highlights.

(Rs crores)

Name of State/ Union Territory	Value of gross block as on	
	31-3-1972	31-3-1980
Andhra Pradesh	127.00	775.12
Assam	126.80	490.37
Bihar	1,064.20	3,151.67
Gujarat	175.60	879.80
Haryana	8.30	252.97
Himachal Pradesh	0.30	127.02
Jammu & Kashmir	—	7.05
Karnataka	113.20	746.45
Kerala	137.10	422.84
Madhya Pradesh	609.90	2,230.77
Maharashtra	146.50	1,313.94
Orissa	35.30	928.37
Punjab	35.30	362.52
Rajasthan	56.30	337.62
Tamil Nadu	343.70	747.74
Uttar Pradesh	481.50	802.28
West Bengal	518.00	1,540.39
Delhi	—	501.89
Goa	—	6.37
Other States/ Union Territories	—	250.24
Unallocated	—	2,385.72
Total	—	18,161.14

SPECIAL REPORTS

REAGAN'S TRADE WAR AGAINST EUROPEAN ALLIES

From RADHESYAM PUROHIT

BONN

THE American decision to enforce strict embargo on all technical equipments supplied by the US firms for the proposed European-Soviet gas pipeline has once again disturbed political and economical relations between the US and countries of European Common Market (EEC). As President Reagan has also extended the embargo on all US firms abroad and those producing the equipments on American licences, several West German firms are likely to be hard hit. The gas pipeline project itself, though not to be abandoned, might not be completed in time, a spokesman of the German firm AEG said.

Among the EEC countries, West Germany seems to be greatly annoyed by Mr Reagan's decision. Chancellor Helmut Schmidt, though protesting on a low-key tone, called for a revision of the US decision. Mr Schmidt's aids, however, called the US embargo as the "American trade war with the Soviet Union which could damage the trade interests of the EEC with the East Bloc." Some Bonn politicians have also said that after Mr Reagan's recent visit, West Germany and the USA came closer. But now the American action has created "a crisis of confidence on both sides of the Atlantic."

There is a general criticism of the US embargo decision and the West German consortium of commercial banks, who are partly financing the gas pipeline project, demonstratively rejected the US embargo decision. Mr Hans Friderichs, a former minister of economics and now chairman of the Dresdner Bank, went to Moscow on June 30 and initialled the German-Soviet credit agreement of DM 5,000 million for the proposed gas pipeline project. This agreement was due to be formally signed between the two parties on July 12 in Leningrad.

Chancellor Schmidt is now scheduled to visit the US from July 20-27. During his week-long stay, Mr Schmidt would confer with President Reagan and other US leaders. Bonn was taken aback by the sudden resignation of the US Secretary of State, Mr Alexander Haig,

who, according to West German sources, was fully aware of West European problems and approached them with sympathy and consideration. The new US foreign secretary, Mr George Shultz, however, is also said to be "the best personal friend of Mr Helmut Schmidt in the USA."

While analysing the US embargo decision, political observers feel that the American action did not come as a bolt from the blue. The Europeans and Americans have for months been engaged in an agreement over US opposition to the European-Soviet gas pipeline deal. In the American view, West Europe would fall into "a dangerous dependency" on the Soviets if they consume Soviet gas supplied later by the project. The Reagan Administration made it clear that the White House was against the deal as it was financed by the West European credits and repayable only through the long-term supply of natural gas from Siberia. This "barter deal" would, according to Washington, help only Moscow to develop its gas fields with western technology. And in case of an emergency, the Soviets could even "blackmail" the Europeans by threatening to stop the supply of gas to Europe.

The Europeans, however, do not agree with the US view. They argue that with the gas pipeline project, the Soviets would be supplying only additional energy to Europe and in case of an eventual "emergency" Europeans could well do without the Soviet gas. The practical outcome of the European-Soviet gas deal would be to lessen the heavy burden of oil bills of West Europe.

West Germans are convinced that the Reagan Administration is following an economic and foreign policy aimed to weaken the Soviet Union. The implementation of this policy, however, is not only contradictory to the modern system of free trade, but bears the simple logic of restrictive mercantilistic policy of trade that prevailed during the 18th century. Accordingly, the US is following the policy that any deal that strengthens the Soviet Union is bad while those deals that weaken Moscow — or force the

Soviets to be dependent — are good.

Consequently, the US sale of food for cash to the Soviets is good because it depletes the gold and foreign exchange reserves of the Soviet Union and involves no transfer of technology. The European gas pipeline deal, on the other hand, is a bad deal because, first, it transfers technology to the Soviet Union; second, it strengthens the East Bloc as a whole; and, finally, the repayment made by the goods produced by the European technology.

Highlighting West German stand on the issue, all the major political parties in Bonn have pointed out that Federal Republic of Germany was the only western industrial country, which was bordering directly on the Soviet bloc. Bonn's political and economic dealings with Moscow was, therefore, governed by the geopolitical realities. The US, which failed to understand the real implications of the east-west detente, could not afford to follow a policy aimed to "weaken the Soviet Union". The West Europeans would like to continue their efforts in maintaining good neighbourly relations with the Soviet Union and countries of the east bloc.

Bonn's present parliamentary opposition, the Christian Democratic Union (CDU), which is hopeful of returning to power in autumn, however, considers the coalition government of the Social Democrats (SPD/FDP) has made too liberal concessions to Moscow for the attainment of *detente*. But the CDU criticism is not on the *detente* itself and even a CDU government in Bonn is unlikely to deviate from the necessity of the continuation of the east-west political peace.

Chancellor Helmut Schmidt is hopeful that during his ensuing visit to the US he would be able to convince the White House about the importance of Bonn's "Ostpolitik" or east-west *detente*. Mr Schmidt would also clarify that a policy of "roll back" would not only create an atmosphere of pessimism and misunderstanding, but also divide the European Atlantic alliance, which then only could strengthen the Soviet Union.

SOS from shipping

BOMBAY

THE Indian shipping industry is struggling for survival from a deep depression that has hit shipping the world over, and which, unfortunately for this country's shipping, has also been accompanied by a declining share in India's foreign trade. Not even during the prolonged depression between 1975-79 had the Indian shipping industry faced such adverse circumstances. Not that the four-year long depression had made no impact on the industry. While no Indian ship was laid up, towards the end of this depression, Indian shipowners also started facing cash flow problems. Within 18 months of the recovery from the 1975-79 depression the shipping industry has been plunged into another depression, which this time threatens to test the financial viability of some of the country's shipping companies.

Spokesmen of the shipping industry

at a press conference last week said that some of our shipping companies were facing cashflow loss of Rs 50 lakhs to Rs 1 crore every month. This time, they explained, the world shipping was finding that there was less of cargo and lower freights too in contrast to the 1975-79 depression when there was some cargo to be carried though the freight rates were lower.

The news conference was convened by Admiral R.K.S. Gandhi, president of the Indian National Shipowners Association (INSA). Among those who addressed it were Mr J.G. Saggi, chairman of Mogul Line, Capt. J.C. Anand, chief executive, India Steamship Co, Mr N.M. Trivedi, chief executive, Scindia Steam Navigation Co, Mr K.M. Seth, deputy chairman, Great Eastern Shipping Co and Mr Ramesh Garware, managing director of Garware Shipping Corporation. All of them emphasised that this time at least, unlike during the 1975-79 depression, New Delhi must act quickly if it was to rescue

the shipping industry from the grave situation faced by it.

Mr Saggi said that the Indian shipowners did not want any massive injection of finance. They only desired that their loans and interest repayment liabilities to the Shipping Development Fund Committee and under the SAFAUNS scheme be deferred during the period of recession. It would be a small adjustment to be made for saving the national shipping.

The shipping industry representatives during their recent meetings with the Prime Minister, Mrs Indira Gandhi, the Shipping Minister, Mr Veerendra Patil, and the Finance Minister, Mr Pranab Mukherjee, had pleaded for a moratorium on the repayment liabilities for three years in the expectation that a recovery in the freight markets would start in a year or two, but it would appear that the industry would be satisfied at present if such a sort of moratorium was accorded for even one year (1982-83).



Even container-oriented vessels are a loss-making proposition in current depression

At the news conference, it was explained that the total loans to the Shipping Development Fund Committee and under the SAFAUNS scheme, due for repayment during the current financial year, amounted to Rs 105.50 crores. This included the loans of both the private sector and the government-owned Shipping Corporation of India and the Mogul Line. The SDFC loans and the interest of the private shipping companies totalled Rs 44.5 crores and the SAFAUNS loans Rs 9.41 crores. The SCI has to repay during the current financial year SDFC loans of Rs 50 crores and SAFAUNS loans of Rs 17 crores but it is seeking relief for only Rs 42 crores as it will be able to pay Rs 25 crores.

Apart from the SDFC and SAFAUNS loans the private shipping industry has also to repay Rs 103 crores against the foreign exchange loans and interests due to it. The industry has also pointed out that the interest on these loans, which are mostly Euro-currency loans, was very high and was 20 per cent for some time in 1981 and now it is 17 per cent. The re-scheduling of the loans would only add to the interest burden of the shipping companies and could also expose them to the risk of exchange fluctuation for a longer period. The industry has suggested, therefore, that the foreign exchange loans repayments during 1982-83 be financed by the SDFC by giving additional rupee loans which could be used by the shipping companies for the purchase of foreign exchange from the RBI.

The share of Indian lines in the transport of the country's imports and exports has been declining for the past four to five years. The share was as much as 41.1 per cent in 1976-77 but it dropped to just 31.7 per cent in 1979-80 and though there was a slight recovery to 32.3 per cent in the subsequent year, the figure is much below the 40 per cent share conceded even under the UNCTAD lines code. In the bulk cargo, Indian lines can aspire to carry 50 per cent of the cargo. There has been a continuing debate between Indian shippers and shipping companies on the causes for the former not patronising the Indian ships. The shippers have alleged that the Indian lines are not as efficient as the foreign lines in their service. Their approach to the whole problem of marketing of services is faulty. Indian shipping lines maintain, however, that the reasons are different. The foreign

shipowners, they say, treat Indian ports as mere wayports and pick up any cargo that they can lay their hands on at whatever freight they can collect. Indian shipowners cannot afford to cut freight rates by 20 to 50 per cent as the foreign shipowners can do. There is some force in their contention as the experience of the ICL, the consortium forged by the Shipping Corporation of India, Scindia Steam Navigation Co and India Steamship Navigation Co to operate container services on the Indo-UK route shows. The ICL had fixed the freight at \$ 2,400 per box from Bombay to European ports but found that the foreign shipping lines were lifting the cargo at such cut-throat rates that they had to lower the rate to just \$ 1,200 per box. In the process, during the last 16 months, the ICL has been in operation, it has made a loss of as much as Rs 45 crores.

Mr Saggi told the news conference that the Indian shipowners had requested the government to initiate effective steps to curb this tendency on the part of foreign shipowners and to provide adequate cargo support to Indian shipowners so that they could face the recessionary period with greater confidence. But apparently shipowners are divided on the policy the government should pursue. Mr N.M. Trivedi, chief executive

of Scindia Steamship Navigation Co and Capt J.C. Anand, chief executive of India Steamship Navigation Co, said that the Government of India should take a lead from what such countries as Bangladesh, Indonesia, the Philippines and Sri Lanka were doing for reserving cargo for national shipping lines. Even such a country as France, it was pointed out by others, was encouraging shipping of goods by French bottoms and this policy was being pursued vigorously by the socialist government of President Mitterand.

Another view expressed was that the government need not go as far as cargo reservation but it should, like the US government asking all shipping lines that wanted to participate in the transport of US trade to register their freight tariff with the Federal Maritime Commission, force all foreign lines trading with India to register their tariff rates with an agency of the Government of India. At the same time there should be a strict monitoring of the cargo.

That the Indian lines are getting wise from their experiences is shown by the decision of the SCI to start shortly a bi-monthly liner service from the ports of Japan, South Korea, Taiwan and Hong Kong to the West Asian ports of Dubai, Dammam and Kuwait. This will be a completely cross-trade service and SCI ships on this liner service will not touch any Indian ports. Five newly acquired vessels of break-bulk and container type would be deployed on the route and the modalities of service, according to Mr P. C. Shukla, executive director of the SCI, were being worked out.

The SCI decision has come in the face of strong opposition put to it at the Japan/India/Pak-Gulf-Japan conference (JAPERCON). According to Mr Shukla, this conference had threatened the SCI with "dire consequences" if the latter started lifting cargo emanating from the ports of the conference routes on West Asian ports. Mr Shukla explained that the threat implied that the conference could ask SCI to pay five times the tonnage freight collected by it on this route and a failure to pay would mean expulsion from the conference membership. Mr Shukla asserted that the SCI was not worried by the threat and the stand of the conference implied that the developing maritime countries could never aspire for cross-trades. It was noteworthy, he pointed out, that both Pakistan and Iran, which were also members of this conference, had supported the SCI.

Bombay spot exchange rates of currencies as on 12th July '82

(Currency units per Rs 100)

Country	Currency	Selling T.T.D.D	Buying T.T. Clean
Australia	A. \$	10.170	10.390
Austria	A. Schilling	180.20	184.00
Belgium	B. Franc	486.00	496.50
Canada	C. \$	13.120	13.390
Denmark	D. Kroner	88.20	90.00
France	Franc	70.90	72.25
Hongkong	H. K. \$	60.70	62.00
Italy	Lira	14285	14577
Japan	Yen	2628	2675
Malaysia	M. \$	24.35	24.85
Netherlands	Guilder	28.15	28.71
Norway	N. Kroner	65.50	66.85
Singapore	S. \$	22.17	22.62
Sweden	S. Kroner	63.20	64.50
Switzerland	S. Franc	21.75	22.16
UK	£	6.0175	6.0620
USA	\$	10.400	10.505
West Germany	D.M.	25.56	26.00

Source: Syndicate Bank, International Division, Central office Bombay 400 021

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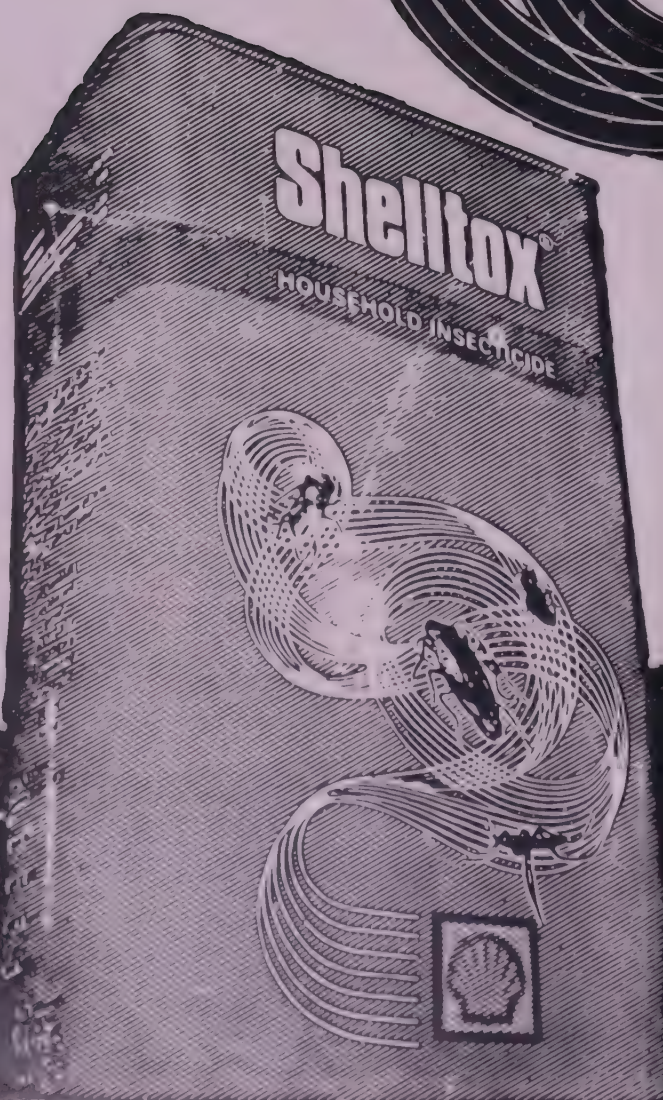
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BANGALORE

THE State Government is in the process of washing its hands off one of its biggest and ambitious ventures in recent years, the Karnataka Shipping Corporation Ltd, floated some eight years ago, amidst great fanfare and hopes of making Karnataka a prestigious maritime state of the Indian Union. Enthusiasts of the State sector felt sad as the Finance Minister announced to the State Assem-

performed better, commercially, and its working placed on an even keel, once the inhibiting factors were no longer there. For instance, the fifth annual report (1979-80) had clarified that the company's paid-up share capital, which had remained at Rs 300 lakh, same as the authorised share capital, would have in the normal course been more than adequate to maintain its debt/equity ratio within the prescribed limits of 6:1, in relation to its

quently there was considerable deviation in the debt/equity ratio.

The 1979-80 annual report had also said that the operation of the two vessels resulted in higher earnings, thanks mainly to the significant recovery in the charter hire-freight rates. The encouraging trend of the overall performance would have been more evident but for the adverse effect of some unavoidable factors such as the prolonged waiting time encountered by the vessels for berthing due to congestion in Indian ports and the unfulfilled obligation on the part of charterers of one of the vessels. The two ships together had lost over 120 shipdays. The other adverse factor was that one of the two ships had to remain idle for 37 days because of dry docking and repairs. The increasing operational costs, coupled with the unforeseen aggregate interest liability on the diminishing foreign currency loans (for purchase of ships) resulted in a loss as against definite profits which otherwise would have resulted. Also, it was hoped that the slump which had affected the shipping business all over the world having been passed over, there would be sustained stability in the charter hire and freight market conditions in the years to come.

SAD STORY OF KARNATAKA SHIPPING CORPORATION

ly, a few weeks ago, the Government's decision to wind up the shipping undertaking and hand it over to the Mogul Lines, a Government of India concern.

The State Shipping Corporation had employed two vessels, *M. V. Karnataka* and *M. V. Krishnaraja*, for overseas charter hire. The two vessels had been purchased, at intervals, from out of the total foreign currency loan of US \$ 10.680 million from the Chemical Bank, New York. The company's authorised share capital of Rs 300 lakh was increased to Rs 500 lakhs towards the end of 1979. The State Government's share holding was to the extent of 51 per cent to which several State undertakings had contributed. The Chief Secretary used to be the chairman of the company:

The Government's argument against running the State Shipping Corporation was that the venture had already suffered an accumulated loss of over Rs 4 crore and a two-vessel-based operation was not a viable proposition. The venture's prospects had received a setback owing to the setback to the ambitious Kudremukh Iron Ore project which was, originally, hitched to the Iranian steel mills which were to be supplied with huge quantities of processed Kudremukh iron ore. Its exports were to be handled by the Karnataka Shipping Corporation. The iron ore exports to Iran had been one of the strong justification for floating the shipping company.

It was possible that given some more time, the shipping venture could have

existing two vessels but for the unforeseen losses it suffered, inevitably, over the last four years, in the context of the worldwide prolonged recession which had affected shipping, till recently. The company's equity base had, unfortunately, suffered erosion on account of recurring losses over the last four years and conse-

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

		Rs per kg				Percentage variation on July 9, 1982 over		
	Quality	July 9, 1982	July 2, 1982	June 11, 1982	July 10, 1981	a week ago	a month ago	a year ago
Rice	Average	4.75	4.50	4.00	3.50	5.6	18.8	35.7
Wheat	Average	3.00	3.60	3.50	3.50	5.6	8.6	8.6
Jowar	Average	3.00	3.00	3.00	2.20	—	—	36.4
Bajra	Average	3.00	3.00	3.00	2.20	—	—	36.4
Gram dal	Average	5.20	5.00	5.00	6.20	4.0	4.0	-16.1
Tur dal	Average	7.25	7.00	6.50	6.50	3.6	11.5	11.5
Potatoes	Average	2.50	2.50	2.50	2.40	—	—	4.2
Onions	Average	1.50	1.75	1.25	2.00	-14.3	20.0	-25.0
Milk per litre	Buffalo	7.00	7.00	7.00	5.00	—	—	40.00
Tea	Average	26.00	24.00	24.00	23.00	8.3	8.3	13.0
Coffee	Average	20.00	19.00	19.00	17.50	5.3	5.3	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.55	1.55	1.55	1.55	—	—	—
Sugar	Average	5.50	5.50	5.60	6.70	—	-1.8	-17.9
Gur	Average	6.00	5.50	5.00	6.00	9.1	20.0	—
Groundnut oil	Average	15.00	14.50	15.00	15.00	3.4	—	—
Vanaspati	Average	17.00	17.00	18.00	16.00	—	-5.6	6.3
Toilet soap	—	2.00	2.00	2.00	1.90	—	—	5.3
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

Major payment crisis on Dalal Street

BOMBAY

A serious payment crisis on the Bombay stock exchange was in the offing all the while, especially since Reliance share delivery episode in May. Unfortunately, neither the governing Board of the stock exchange nor the Finance Ministry did think it fit to curb over-speculation in the pivotal shares such as Century and Tata Steel. The stock exchange authorities were satisfied only with shifting the Reliance textile shares to the 'B' group list from August 6 to be traded strictly on spot delivery basis. Even at that time there were rumours that a similar situation, as in Reliance, would develop in Century and Tata Steel, and this happened last week in the case of Century.

During the course of one week alone Century shares have crashed by about Rs 250 while other blue chips have nose-dived by five to ten per cent. The governing board of the stock exchange sensing too late that a crisis was coming fixed a floor price for Century of Rs 825 and members were prohibited from trading in Century below this price. At the emergency meeting held on July 8, floor prices were fixed also for other pivotal shares. For Tata Steel it was Rs 325, for Premier Automobiles Rs 300, for Baroda Rayon Rs 360, for ACC Rs 260 and for Telco Rs 365.

It is not clear whether the action by the governing board of the Bombay Stock Exchange was on the initiative of the Union Finance Ministry. But a news agency report from New Delhi suggests that it was the Finance Ministry which took the initiative to fix the minimum price for Century at Rs 825 for the purposes of purchase and sale under Security Regulation Act. New Delhi apparently found that it could not help intervening since the price had dropped from Rs 910 to Rs 765 in the three days preceding the intervention on July 9. This news agency report also suggested that price differentials in respect of the scrips in different stock exchanges, mainly Bombay, Delhi, Calcutta and Ahmedabad, had accumulated to the tune of Rs 5 crores.

In Bombay itself a prominent bull operator in Century reportedly had refused to honour his commitments estimated at



Speculators all? A scene in the ring of Bombay Stock Exchange

Member of governing board defaults

BOMBAY

THE Bombay Stock Exchange has declared as defaulter Mr Sumatilal Jamnalal, a member of the governing board of the stock exchange, whose failure to honour his commitments forced a payment crisis this week, in Dalal Street. Another member of the stock exchange, Mr C.V. Shah has also been declared a defaulter. The outstandings of Mr Jamnalal are still not known but earlier reports had said they were running into about Rs 2 crores. Those of Mr Shah are said to be about a few lakhs of rupees.

The action of the authorities of the Bombay Stock Exchange does not end the crisis. With Mr Jamnalal being declared a defaulter, individual members will have to assess their losses in dealings with him. Mr Jamnalal's failure to honour his commitments could even lead to a chain reaction. Under the rules and regulations of the Bombay Stock Exchange, it can initiate measures to recover dues even from members who had business dealings with defaulters. Also the securities already lodged by the defaulting members with the stock exchange and

their badges will be impounded.

The frequent suspension of the business on the Bombay Stock Exchange and recurring threats of a payment crisis — this time it was no longer capable of being papered over — has shaken the confidence of thousands of investors, apart from that of member brokers. The fact that one of the members of the governing board has himself been declared a defaulter speaks volumes for the way the governing board of the Bombay Stock Exchange has been functioning recently. The crux of the problem is the facility given to brokers of so many shares to clinch deals without having to pay cash on the spot. If the so-called "forward list" of shares is not liquidated and cash payment is insisted upon, 90 per cent of the problems of the stock exchange will disappear. Yet for some strange reason this remedy is not being applied — despite the fact that genuine investors benefit from the remedy. Investors strongly feel that the Ministry of Finance must intervene to restore the health of the market which, many fear, will collapse in the absence of official action.

Rs 2 crores. This operator is himself a member of the governing board of the stock exchange and has reportedly large commitments in Telco, Tata Steel, ACC and other pivotal counters, besides a long position of 50,000 shares in Century. With his refusal to meet his commitments, trading in shares came to a halt on July 9, despite the market being officially open, as the 'pay-in' in respect of the last settlement could not be completed as per the schedule. Some leading brokers suggested a squaring up of the outstanding business at the floor price of Rs 825 per share. It was their contention that this would arrest a further decline in the share and bring about stability in the market. But this move was being opposed, and rightly too, by others in the market who argued that this would be helping directly bear operators who had hammered the market in this scrip and brought about

the crisis. It was also their contention that such a squaring up would be unfair to genuine sellers of the shares.

According to some reports the current crisis was likely to involve about 50 brokers' firms as the leading bull operator in Century had entered into large commitments with a number of them. Such a crisis would be the worst one on the Dalal Street in recent years and many brokers feel that the governing board could have avoided it if it had acted in time. It is being pointed out that, in the past, the board used to see that there was no concentration of speculative business in the hands of either one or two bears or bulls. Stern action used also to be taken against brokers who evaded payment of margins. In the past members were suspended if they failed to pay the margin but this seems to be almost a forgotten regulation now.

Secondary market for debentures

BOMBAY

MR N.N. Pai, chairman and managing director of Industrial Development Bank of India, made the welcome announcement on July 3 that the financial institutions had taken a major decision in favour of creating and strengthening a secondary market for debentures. Addressing a seminar on capital market and the stock exchanges, organized by the Western India Regional Council of the Institute of Chartered Accountants of India, Mr Pai said, "Institutions would soon start announcing, at regular intervals, purchase and sale prices of debentures so that the investors are assured of reasonable prices for their debenture holdings. The willingness of institutions to purchase and sell debentures at announced prices would help lending stability to and orderly behaviour in the market." Mr Pai expressed the hope that with this development investors would not be required, as at present, to run from pillar to post, chasing a jobber, who is keen to strike a bargain at heavy loss to small investors, and thus go a long way toward developing a very healthy market for debentures. During 1981-82 over Rs 500 crores were raised through public issues of equities and debentures.

Mr Pai saw in recent trends the tape-

ring off of the glamour for convertible debentures. According to him some of the very good convertible debentures could barely manage to get fully subscribed. He thought the fortune of a convertible debenture was directly tied to that of the equity which the debenture promised to provide at a later date rather than to the interest-earning part of the debenture. The point to take note in this connection is that only a small portion — generally about 25 per cent — of such a debenture is convertible into equity shares and the balance is realisable only after 8 to 10 years during which period this carries an interest of 13.5 per cent. On the other hand the investor can derive 15 per cent interest by keeping his amount in fixed deposit, in very many cases, with the very same company whose debenture he has purchased. Keeping this context in mind, the attractiveness of debentures is seen in the proper light. It is clear that debentures are unlikely to appear very attractive to the discerning investors. Mr Pai was very right in drawing attention to the need for ensuring a minimum desirable rate of return on equity, commensurate with the ruling interest rates structure. This calls for the sustained cooperation of economic policy makers and corporate managers.

TEXTILE MILLS

Plea for modernisation fund

BOMBAY

THE Indian Cotton Mills' Federation (ICMF) certainly did not anticipate the announcement by the Government of India on July 9 that it was setting up a tripartite committee, consisting of the representatives of the central trade union organisation, industry and government, to examine the problems of the textile industry at the national level and of the textile workers. The decision to set up the committee has been virtually forced on New Delhi by the almost six-month-long strike of textile workers in 60 mills in Bombay. But it is welcome that the government, instead of restricting the terms of reference of the tripartite committee to the demands of the textile workers in Bombay, will extend them to cover the problems of the textile industry particularly its modernisation.

The federation has just prepared its case in regard to the funds needed for the modernisation of the industry in reply to a questionnaire of the study group appointed by the Planning Commission on financing of the private corporate sector in the Sixth Five Year Plan. This study, released at a press conference last week, emphasises the need for the creation of a textile modernisation fund after drawing the Planning Commission's attention to the fact that there is very limited scope for the textile mills to attract capital from the public by way of equity capital and public deposits.

According to the federation the industry is today saddled with old and obsolete machinery. About 63 per cent of spindles and 82 per cent of looms installed in the industry are over 15 years old. Apart from the old age of the machinery, technological obsolescence has also to be reckoned with. And so the federation suggests that it would be proper to replace machinery 15 years old with new machines of the latest designs. Looking to the old age of such machines, it says, it would not be worthwhile to convert them into modern equipment. Further, it is becoming increasingly difficult for

the mills to procure the right type of spare and components for the old machinery. Accordingly, the ICMF's revised model of its modernisation plan for the textile industry, envisages that, apart from machines of conventional design, machinery over 15 years of age would be by and large replaced by the latest high speed and semi-high speed machines.

The cost of modernisation estimated by the ICMF is Rs 2,475 crores. The target is to be achieved by the end of the current decade (1990). However, during the two-year period 1980-82, the industry has spent about Rs 350 crores for modernisation and thus there remains an outstanding backlog of modernisation to the tune of Rs 2,125 crores, to be carried out in the next eight years. An average annual investment of Rs 266 crores would thus be needed for the whole industry and the plan certainly cannot be termed as over-ambitious. But it is the case of the industry that it will not be able to raise these funds from internal resources or attract capital by way of equity and debentures and public deposits. It is pointed out that the profits available to the textile industry are just 8.5 per cent of the sales and they are inadequate to meet the margin money for increased working capital arising out of inflation, to meet the funds for replacement for capital assets and providing fair return on capital employed.

Apparently, the textile industry, while acknowledging that the soft loans scheme of the Industrial Development Bank of India (IDBI) has facilitated investment by textile mills in modernisation programmes, feels that much more needs to be done. As of the end of 1981, IDBI had disbursed Rs 221.25 crores for the modernisation programme. It had actually sanctioned 296 applications for Rs 429.29 crores. If the modernisation programme was to be pushed through, measures would have to be initiated for assistance to the tune of at least Rs 250 crores per year. Hence it is suggested for textile modernisation funds (a) mills should be allowed to set apart 30 per cent of pre-tax profits in years of better working and (b) mills should be given refund of excise duty exclusively to be used for purchase of textile machinery. In the opinion of the ICMF such a step would ensure continuity of modernisation even in times of adverse working of mills, as at present, and at the same insulate machinery makers from fluctuations in demand.

STATES OVERDRAFTS

Policy tightened; outstanding converted into loans

CALCUTTA

THE Union Finance Minister, Mr Pranab Mukherjee, significantly chose Calcutta to announce a package of measures on overdrafts to the States and the related issues. He first met the Chief Minister of West Bengal, Mr Jyoti Basu, to discuss the vexed issue of West Bengal's mammoth overdraft problem with him and then announced the package of measures.

The package in brief amounts to this. Overdraft facilities for the State Governments having tight standards of fiscal discipline as well as those with laxity in their ways of spending ceases from July 1. The outstanding overdrafts are converted into medium term loans carrying an interest of only 6½ per cent, the amount withdrawn as overdraft between April and June will be adjusted against Central assistance to the States for Plan as well as other purposes.

For some states the repayment period is five years and West Bengal is in this category. For some others it is ten and these include: Assam, Himachal Pradesh, Manipur, Meghalaya, Nagaland, Tripura, Jammu and Kashmir, and Sikkim. For the leniency to the latter there is the justification that they are basically economically weaker States who need to be shown greater accommodation than the rest.

The package looks neat and gives all the States a clean slate to start with now. As the Union Finance Minister disclosed, the total amount of overdrafts due from the states till March 31 last was Rs 1,743.46 crores but between April 1 and June 30 last the amount was as much as Rs 1,107.23 crores. Of the first, West Bengal's share was the highest that is Rs 340 crores. Mr Jyoti Basu has already accepted this although the former Finance Minister, Mr Ashok Mitra, never did, raising a seemingly interminable controversy that went with him. The Chief Minister has also accepted that the amount taken by way of loan between April and June by the State was Rs 62 crores but he has two objections to the Central package as far as West Bengal is concerned. Firstly, the repayment period for the overdraft should be spread over seven years and not five and, secondly, the amount

of Rs 62 crores borrowed between April and June should not be adjusted against the money to be transferred from the Centre as Plan assistance as well as from the divisible pool.

But on the whole Mr Basu appears to be satisfied with the basic approach of the Union Finance Minister rather than let the overdraft issue drag on and create bad blood between the Centre and the States who are financially badly off. Anyway, it would be better to give the states a medium term loan at fairly easy rates of interest and then give them some breathing space to put their house in order.

In fact, the overdrafts regulation scheme was introduced by the Centre in 1972 and modified later in 1978. Unlike the staggering amount of overdrafts incurred by the states now and being converted into loans, the amounts of overdrafts converted into loans at that time were very much less — Rs 552 crores in 1972 and lower still at Rs 421 crores in 1978.

States' Overdrafts
(As on March 25, 1982)

State	Rs crore
Andhra Pradesh	—
Assam	69.68
Bihar	11.79
Gujarat	71.79
Haryana	55.05
Himachal Pradesh	30.37
Jammu & Kashmir	—
Karnataka	23.42
Kerala	91.18
Madhya Pradesh	108.73
Maharashtra	77.40
Manipur	52.39
Meghalaya	5.74
Nagaland	9.88
Orissa	21.00
Punjab	3.91
Rajasthan	334.00
Sikkim	—
Tamil Nadu	—
Tripura	26.00
Uttar Pradesh	10.00
West Bengal	321.50
Total	1,324.10

* These States do not bank with the Reserve Bank of India

** Data as on March 17, 1982

The combined overdrafts figure of all states stood at Rs 1,743.46 crores as on March 31, 1982. However, the State-wise break-up of the same is not available.

Anti-dumping measures coming

BOMBAY

THE Union Finance Minister, Mr Pranab Mukherjee, has requested the Commerce Ministry to identify commodities where unrestricted imports are causing damage to domestic industry so that the Government can take action on the matter soon. Addressing industrialists, government and bank representatives at a meeting organised at the Indian Merchants Chamber here recently, he said, India was also a party to the GATT agreement of anti-dumping and could resort to various provisions of the agreement. But, there was a time lag in applying these provisions and formalities had to be completed. The problem of dumping, he said, could also be tackled through an administrative mechanism. The Finance Minister, however, reminded industrialists that they owed a responsibility to the nation to maintain the price line if imports were to be reduced. They should not take advantage of the sheltered market to push up prices.

Industrialists present at the meeting, including the president of the Indian Merchants Chamber, Mr Kantikumar Podar, complained that imports of aluminium, polyester fibre and soda ash had affected domestic production of these items. Mr Mukherjee made it clear that the country's liberalised import policy did not mean it would allow the country to become a dumping ground. When India was facing serious foreign exchange problems, it could not allow unrestricted imports. The country's import bill was increasing and its exports were not picking up. Exports in the current year would be far short of the target, at

Rs 7,700 to Rs 7,800 crores, because of the growing protectionism in developed countries and constraints on domestic production. He said, the arrangement with the IMF for a loan was a medium term arrangement and it would be difficult for the country to meet the situation if we were not able to achieve a 9 per cent rate of growth in real, not nominal terms.

The Finance Minister said, India would have to depend more on commercial borrowings and the hard window in future because India was now being treated on a different footing. Its share of the International Development Association (IDA), the soft window of the World Bank, had fallen from 40 per cent to 39.2 per cent. This share was likely to fall still further to around 20-25 per cent.

Certain measures had been taken to improve the investment climate. There was a visible improvement in the share of capital raised by private companies. In the past year, only four companies issued debentures; this year more than 39 had issued debentures and they had been fully subscribed.

On the question of the credit squeeze, he said, a balance had to be struck. The Government had to ensure that the productive sectors were not denied their legitimate credit requirements but it could not allow unlimited monetary expansion.

The Indian economy was marginal and a little imbalance could upset all calculations. India had a surplus trade balance of Rs 72 crores in 1976-77, but thereafter the situation started deteriorating rapidly. This year we had as high a deficit as Rs 5,700 crores because of oil imports. We also had to spend as much as Rs 600 crores to Rs 700 crores for imports of one million tonnes of edible oils and Rs 500 crores to Rs 600 crores for imports of certain types of steel per year.

Earlier, addressing the all-India conference of collectors of customs and central excise here, Mr Mukherjee also emphasised the need to curb smuggling which was on the increase. The tempo of detentions under the COFEPOSA Act had not been maintained after 1974. In our society, he said, there was no disapproval of economic offenders and this was a major hindrance standing in the way of dealing with economic offenders. Smuggling activities had to be prevented to save foreign exchange. Collective economic and fiscal policies and appropriate import and pricing policies would reduce smuggling, but he said the price of gold for instance could not be reduced here because the costs of production were high.

He said, 40 speedboats would be imported for intensified anti-smuggling activities in addition to 40 indigenous craft and 25 small waterjets to be used in the coastal areas.

FAMINE CONDITIONS IN CACHAR

SILCHAR

THE food problem in Cachar district has assumed a fearful proportion. The rural areas of the district present the heart-rending scene of famine. The Weekly *Arunodaya* of Silchar has alleged the indifference of the administration to the very grave food situation in the district. For quite some time now rice is being sold in the rural areas at the very high price of Rs 3.50 per kg. Unless corrective measures are adopted immediately the prices may go up to the record high of Rs 5.00 per kg. in the near future. Because of the failure of crops in successive years the small peasantry in Cachar has become penniless. Unable to purchase rice at the prevailing high prices, many people in the rural areas are sustaining themselves on ripe jackfruits and wild varieties of potatoes.

What is a matter of still greater concern is that no rice is available at

the fair price shops. It is not unusual for persons to have to wait for two to three months to receive their quota of rice from the fair price shops. Paradoxically enough, when the fair price shops were not receiving their supplies of foodgrains from the Food Corporation of India the private traders, who were selling rice in the open market at the astronomically high prices, had apparently no difficulty in obtaining supplies. The newspaper has raised the question how in the allotment of wagons for carrying foodgrains the private traders were accorded priority by the Union Ministry of Railways over the Government-owned Food Corporation of India. The newspaper has expressed the fear that unless the Government attends to this extremely precarious food situation this might have an adverse impact on the state of law and order in the district.



United Bank of India

Head Office : 16, Old Court House Street, Calcutta-700 001

31st Dec., 1980

STATEMENT OF POSITION

31st Dec., 1981

LIABILITIES

Rs		Rs
2,68,77,119	Capital : Paid-up Capital	2,68,77,119
4,01,44,491	Reserve Fund etc.	4,32,99,491
13 26,14,80,785	Deposits & Other Accounts	15 59,18,58,737
44,76,78,228	Borrowings from Banks, Agents	42,14,40,165
61,79,55,554	Bills Payable	58,93,82,749
71,17,12,415	Bills for collection per contra	72,63,40,879
13,36,82,199	Other Liabilities	16,66,49,415
62,32,37,293	Acceptances, endorsements etc. per contra	52,01,72,050

Profit & Loss Account

4,48,432	Balance of Profit as per last Balance Sheet	4,10,815
4,48,432	Less transferred to Central Govt.	4,10,815
1,23,10,815	Balance of profit for the year	1,36,86,999
	Less : Transferred to :	
33,00,000	(1) Reserve Fund	28,00,000
82,00,000	(2) Provision for Bonus	1,00,00,000
4,00,000	(3) Investment Reserve	4,00,000
4,10,815	Balance to be transferred to Central Government	4,86,999
<u>15 86,31,78,899</u>		<u>18 08,65,07,604</u>

ASSETS

1 92,85,62,732	Cash in hand and with banks	2 40,66,49,894
3,00,000	Money at call and short notice	3,00,000
4 22,69,57,106	Investments (at or below cost)	5 04,66,43,003
7 42,18,19,919	Loans & Advances	8 35,45,35,041
71,17,12,415	Bills for collection per contra	72,63,40,879
62,32,37,293	Acceptances, endorsements etc. per contra	52,01,72,050
3,95,49,581	Premises	3,88,81,306
4,13,85,640	Furniture & Fixtures	4,42,37,572
86,74,69,229	Other Assets	94,65,89,466
21,84,984	Non-Banking Assets (at book value)	21,58,393
<u>15 86,31,78,899</u>		<u>18 08,65,07,604</u>

Rural electrification takes big strides

From OUR SPECIAL CORRESPONDENT

THE far reaching effects of rural electrification in changing life styles in the villages through the development of industry and agriculture, with concomitant changes in social attitudes and behaviour, have not been adequately studied in this country. Scientific studies have only quantified the increase in irrigated areas as a result of rural electrification at about four million hectares which resulted in increased foodgrains production of 20 million tonnes. Similarly, calculations have been made of employment generation in the villages through the rural electrification programme, but no proper studies made of the resulting development in villages. According to one study, the rural electrification programme in the country has generated over 1,300 million mandays of permanent employment since its inception.

The Rural Electrification Corporation (REC), mainly responsible for this programme in the country, believes in an integrated approach to rural development, but the area of its operations is necessarily limited to electrification and the energisation of pumpsets. The corporation has successfully adapted to the varied requirements of different regions by designing specific power projects for different areas. Area based projects have enabled the corporation to dovetail its projects with other development programmes. The corporation has also given priority to the development of backward areas in order to reduce imbalances in the country.

Under the new 20 point programme, to speed up rural development in the country, the corporation has reorganised its set-up and streamlined its operations. It has set up project level offices throughout the country to promote interaction with the state electricity boards and help speed up electrification projects. The corporation has also changed its loan portfolio and set up an independent monitoring division to supervise the implementation of rural electrification projects. In the current year, it has set itself an ambitious target of rural electrification in co-operation with the state electricity boards which are to electrify over 26,000 villages. The Planning Com-



Mr. P.M. Belliappa, Chairman, R.E.C.

mission had set a target of electrifying 21,200 villages in the current year.

So far, the corporation has electrified over one lakh villages, about 20 per cent of villages in the country and energised 8.67 lakh irrigation pumpsets. It has sanctioned over 5,300 projects in the country involving an aggregate loan assistance of about Rs 1,700 crores. Of these, 2,000 projects are located in the backward areas and over 500 projects cover the tribal areas. These projects when completed would electrify over 2.2 lakh villages and energise 19 lakh irrigation pumpsets. The projects will also provide power connections to over two lakh industrial units, eleven lakh street light points and over 47 lakh domestic and commercial units. The corporation has also sanctioned over 360 projects for the electrification of over 23,400 harijan bastis.

Under a special programme, the Revised Minimum Needs Programme, the corporation can sanction assistance at concessional rates to districts which did not achieve 50 per cent village electrification as on March 31, 1978. The corporation has sanctioned over 840 projects for these districts.

The corporation has also enlarged its programme of energising pumpsets in cooperation with the Agricultural Refinance Development Corporation (ARDC) and commercial banks. The programme envisages an investment of

Rs 6.30 crores to energise about 8 lakh pumpsets. So far, 2.4 lakh pumpsets have been energised under the programme.

In accordance with its charter, the corporation has also vigorously promoted and financed rural electricity cooperatives for the distribution of electricity in the states on a cooperative basis. It has sanctioned 28 cooperatives and given them an aggregate loan assistance of Rs 50.40 crores.

With the expertise it has built up over the years, the corporation is now in a position to provide professional consultancy services to organisations in India and abroad. The corporation entered into a technical contract with SONEGAZ, the national agency for distribution of electricity and gas in Algeria under which it helped the country to execute rural electrification projects. The corporation's experts have also drawn up rural electrification projects for two areas in Egypt where Indian equipment and material are likely to be used in the projects. REC is planning to extend its consultancy services to several countries in Asia and Africa.



Small industry in a village

Other sources

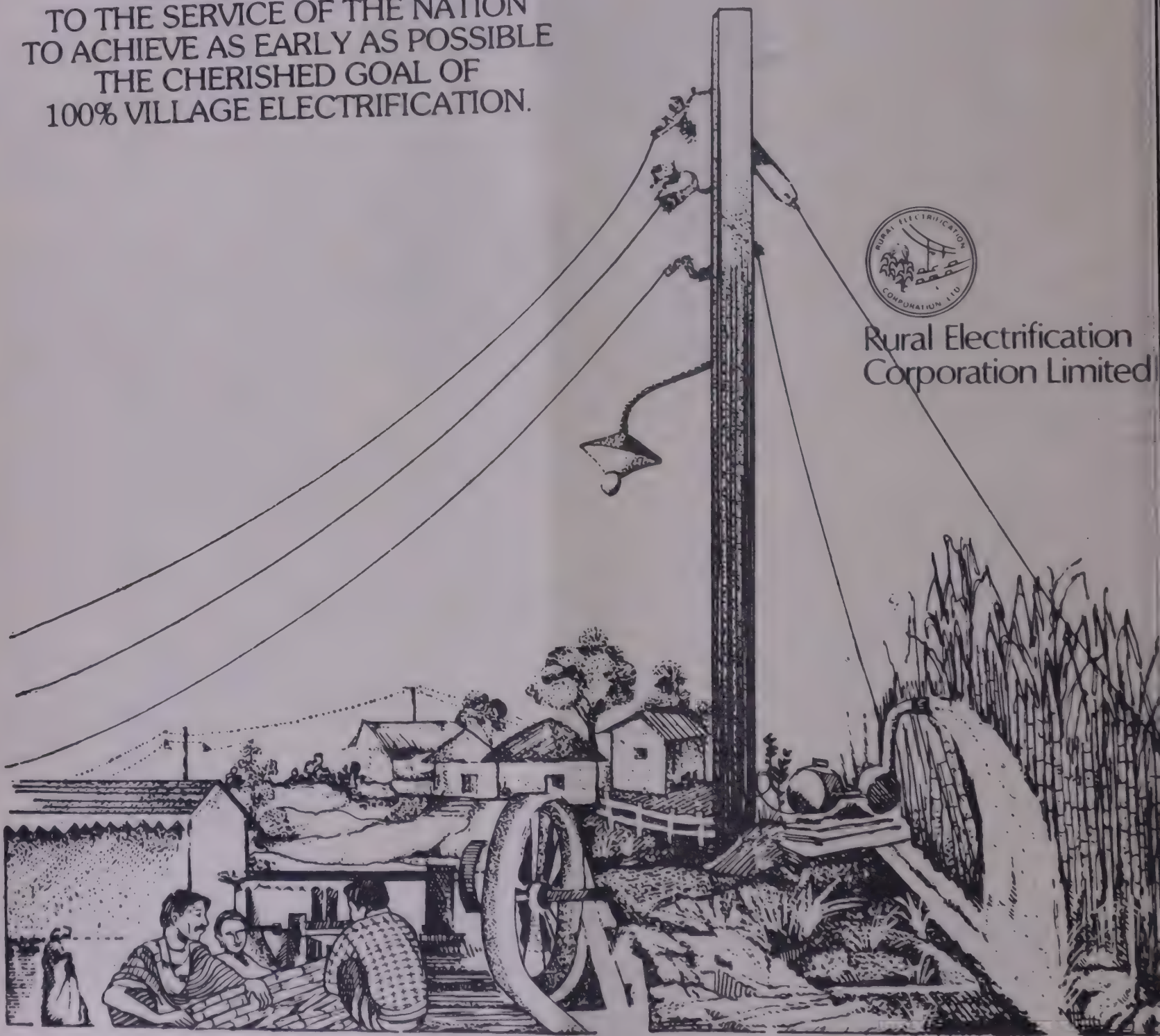
In India, with the growing emphasis on the development of alternate sources of energy, the corporation is trying to promote the use of biogas, solar and wind energy. It has helped set up community bio-gas plants in two villages covered by the Sircilla rural electric cooperative in

(Continued on page 86)

ON ITS 13TH ANNIVERSARY
R E C
REDIDICATES ITSELF
TO THE SERVICE OF THE NATION
TO ACHIEVE AS EARLY AS POSSIBLE
THE CHERISHED GOAL OF
100% VILLAGE ELECTRIFICATION.



Rural Electrification
Corporation Limited



POWER FOR MILLIONS

POWER FOR MILLIONS

Rural Electrification Corporation (REC) is the premier public sector enterprise engaged in the task of providing power to millions of people in rural India.

Since its inception in July, 1969, it has sanctioned over 5,300 projects covering more than 3.28 lakh villages all over the country. With a total loan assistance of about Rs 1,700 crores so far, its projects are programmed to electrify over 2.2 lakh new villages and energise more than 19 lakh irrigation pumpsets, besides over 2 lakh rural industries and about 50 lakh domestic and commercial connections and street lights.

- REC provides soft loans on long-term basis to State Electricity Board & Rural Electric Cooperatives and State Governments to extend electricity to rural areas.
- REC lays emphasis on the productive use of power through energisation of irrigation pumpsets and rural industries.
- REC gives special attention to electrification of under-developed and backward areas, especially to electrification of pockets inhabited by scheduled castes and scheduled tribes and other weaker sections of society.
- REC finances Rural Electric Cooperatives to promote distribution of electricity on cooperative basis with a view to achieving better and quicker service through active consumer participation and involvement.
- REC develops standard equipment, materials and construction practices for rural electrification to achieve maximum system efficiency and economy.
- REC promotes use of alternate sources of energy like bio-gas, solar and wind energy to create supplementary energy sources for rural areas.
- REC imparts training to engineers in all aspects of rural electrification to ensure efficient implementation of RE projects.
- REC provides technical assistance and consultancy services in rural electrification to organisations within the country and abroad.

(Concluded from page 83)

Andhra Pradesh. It has also promoted pilot projects for utilising solar energy.

REC has also undertaken to strengthen the infrastructure for rural electrification and power development by training engineers at its Central Institute for Rural Electrification at Hyderabad. More than 500 engineers from state electricity boards have received training in construction and project management at the institute. The corporation has also assisted the state electricity boards to set up training centres for linemen and assistant linemen.

It has devoted some attention to the standardisation of equipment used for rural electrification to help minimise transmission losses of power generated by the State Electricity Boards.

The growing importance of agriculture and rural development have led to bigger plan outlays for rural electrification over the years. The outlays have



Electrification of villages in hilly areas

risen from Rs 8 crores in the First Five Year Plan to over Rs 740 crores during the Fifth Plan and to Rs 2,280 crores in the Sixth Plan. With an investment of this order, it has been possible to reach electricity to 50 per cent of the over 5.76 lakh villages in the country, covering 70 per cent of the rural population. Another 50 per cent of the villages still remain to be electrified and the scope for energising

pumpsets in the rural areas remains large because only about 50 per cent of our groundwater resources have been tapped so far in the country.

The REC has sustained its performance over the years and achieved a record performance in 1980-81, with a net profit of Rs 7.2 crores, compared to Rs 5 crores in the previous year.

10 YEARS AT A GLANCE

(Rs in lakhs)

PARTICULARS	1980-81	79-80	78-79	77-78	76-77	75-76	74-75	73-74	72-73	71-72
RESOURCES										
(At the end of the year)										
Equity Capital	10,000	8,700	7,700	6,700	6,000	5,500	5,000	3,100	2,000	1,200
Borrowings:										
From Govt. of India	63,235	50,623	38,672	30,157	19,505	13,016	7,779	3,533	2,047	1,050
By issue of Bonds	10,660	8,157	6,150	4,142	3,042	1,942	832			
Others (From Banks)		734	995							
Reserves & Surplus	13,666	13,053	12,542	12,166	11,811	11,538	11,249	10,977	9,231	4,993
FINANCING OPERATIONS										
(During the year)										
Number of projects approved	1,035	776	717	397	337	288	375	246	227	116
Financial assistance sanctioned	26,344	21,142	23,066	14,514	10,491	11,822	13,964	7,588	9,542	6,534
Disbursements	18,437	16,705	15,610	11,299	8,822	7,342	7,819	5,226	4,992	3,611
Recoveries	3,280	2,289	1,622	840	470	86	19	9	3	
Outstandings (at the end of the year)	93,844	78,687	64,276	50,290	39,831	31,482	24,225	16,426	11,209	6,220
TARGETS & ACHIEVEMENTS										
UNDER THE PROJECTS										
(Upto the end of the year)										
Villages electrified:										
Target										
*Achievement	117,526	95,208	75,925	63,895	50,390	39,943	27,207	18,267		
Pumpsets energised:										
Target	91,037	71,794	58,577	49,814	38,898	26,066	17,884	12,465		
*Achievement	889,161	719,724	550,479	482,717	399,151	331,288	247,569	189,403		
	749,760	558,066	413,166	319,005	227,416	139,302	101,374	60,198		
WORKING RESULTS										
(For the year)										
Total interest income	5,508	4,315	3,330	2,505	1,967	1,466	957	737	472	187
Administrative expenditure	255	220	192	182	147	119	92	72	55	26
Interest on borrowings	3,986	3,053	2,288	1,526	1,038	629	232	128	69	9
Depreciation	6	5	5	4	3	2	2	1	1	1
Profit before tax	1,261	1,037	845	793	779	716	631	536	347	151
Provision for tax	536	438	389	365	392	381	328	282	180	78
Profit after tax	725	599	456	428	387	335	303	254	167	73
Dividend on Equity	100	87	77	67	60	55	50	31	20	12

* Figures in respect of earlier years have been adjusted where necessary.

POWER SITUATION

THERE were reports of improvement in the power situation in a number of States, especially in the northern region. The states where the situation was reported to have improved were Haryana, Punjab, Uttar Pradesh, Tamil Nadu and Rajasthan.

The overall power generation in the country in June 1982 at 10,453 million kwh was lower by 1.6 per cent than that of 10,603 million kwh in May 1982. However, at this level it was higher by 6.7 per cent than that of 9,801 million kwh in June 1981.

The regionwise increase in thermal power generation during June 1982 was: north-eastern region — 24 per cent, northern region — 22.5 per cent, southern region — 19.9 per cent, eastern region — 6.6 per cent and western region — 4.1 per cent.

With the June 1982 figure, the power generation during the first three months (April-June) of 1982-83 totalled 31,708 million kwh which was higher by 5.6 per cent than that of 30,023 million kwh during the corresponding months of 1981-82.

The US and India signed an agreement on June 30 under which India would get an assistance of Rs 4.50 crores for the development of alternative energy resources in India. The assistance would cover four major technical areas i.e. biomass production and conversion, coal conversion, energy efficiency and information exchange in new and renewable energies.

Bihar: The four-hour restriction during the peak period on industrial consumers continued. The categories and industries exempted from this restriction included: the areas served by the Damodar Valley Corporation; continuous process units; Heavy Engineering Corporation, Ranchi; Hindustan Fertiliser Corporation, Barauni; Indian Drugs and Pharmaceuticals Ltd, Muzaffarpur; Uranium Corporation of India, Jaduguda; printing presses of daily newspapers and cement manufacturing units having electric smelting furnaces.

TAMIL NADU LIFTS ALL CUTS

By COMMERCE RESEARCH BUREAU

Delhi: The power supply was disrupted in many areas in the Union Territory on July 1, following the damage to the transformer in the Badarpur power complex. The grid disturbance resulted in the tripping of all the units at the Indraprastha power station. The Union Energy Ministry has asked an experts committee to look into the matter and suggest short-term as well as long-term measures to minimise such incidents.

Gujarat: The 50 per cent power cut on continuous process industries and 40 per cent cut on non-continuous process industries continued in the State. Meanwhile, the State Electricity Board raised the power tariff on an average by 13.35 per cent or 5.6 paise per unit, with effect from July 1, 1982. For agricultural purposes the tariff would, however, be less by one paise per unit.

The State Government was reported to have offered free supply of electricity to high power consuming industries in the State if they finance a windmill anywhere in the State to generate power.

Haryana: There were no notified power cuts in the State. However, the restrictions on peak load demand of industries from 6 p.m. to 9 p.m., in addition to one-day weekly off, continued.

Jammu & Kashmir: A power cut of five hours a day for small units and six hours for domestic consumers continued.

Madhya Pradesh: The four-hour per day power cut in Bhopal as also other restrictions and load-shedding continued in the State.

Maharashtra: The 30 per cent demand cut and 35 per cent energy cut on general industries and 22.5 per cent demand cut and 30 per cent energy cut on continuous process industries continued in the State. On June 29, heavy load shedding was witnessed in some parts of Bombay and

other parts of Maharashtra when Gujarat drew more power than its normal share through the Tarapur Atomic Power Station.

Orissa: The power cut of 60 to 66 per cent on 22 major industries (including the Rourkela steel plant, the Talcher fertiliser plant of the Fertiliser Corporation of India, ferro-silicon, ferro-chrome, ferro-manganese, caustic soda and paper industries) and the additional cut on these industries totalling 70 mw continue to be in force in the State.

Punjab: The situation in the State has improved considerably and there were reportedly no notified cuts. The position has especially improved for farmers who were being supplied a minimum of ten hours power a day. However, on July 2, the situation somewhat worsened with the closure of all the four units of the Bhatinda thermal power station due to some technical fault. The faults were expected to be rectified soon.

Rajasthan: The power supply position in the State improved with the availability of 150 mw of power from the northern grid to the State as also the recommissioning of the Unit II of Rajasthan Atomic Power Station. The Unit I was, however, expected to start power generation in September 1982.

Tamil Nadu: In view of the favourable rains and sufficient inflow into the Mettur reservoir, the State Government lifted all power cuts in the State with effect from July 1, 1982.

Uttar Pradesh: There were no power cuts in the State although peak period restrictions on industries continued. An average of 11 to 14 hours supply of power a day to farmers was also continued.

West Bengal: The 15 per cent demand cut on high-tension industries as also peak period restrictions on consumers getting supply at 3.3 KV and above continued.

BOOKS & IDEAS

Balanced view of economy

Economics for Administrators

by J. N. Mongia

Vikas Publishing House Pvt. Ltd., 20/4 Industrial Area, Sahibabad 201 010, Ghaziabad, U.P.; 1982; Pages 539; Price Rs 150.

This is a book on Indian economics specifically addressed to the administrators in this country, the objective of the author being to "assist the administrators in developing an objective and balanced view of the economic problems of the country." In the first 26 pages the author touches upon a few salient points of economic theory. The rest of the volume is concerned with the discussion on the Indian economy with some intermittent notes to provide the theoretical perspective to such a discussion. At the end of some chapters (eg. "agricultural production and policies", "India's unorganised and small scale sector", "industrial development and policies", "foreign trade, foreign exchange and foreign aid", "problems of labour, employment and manpower planning," "the planning process in India," etc.) the author has provided information on the organisational pattern of the department concerned at the level of the Central Government or of the special agencies created (e.g. Khadi and Village Industries Commission) for administering specific economic programmes. Such information is useful not only for the administrators but also for a wider reading public.

The book provides a dependable summary of the economic development in the country upto the beginning of the eighties and thus provides an up-to-date picture of the Indian economy. Reference is also made to the principal policy orientation in the fields of agriculture and industry and measures to back up the policy.

Some of the formulations, however, call for comment. For example, the author writes, "It is a remarkable phenomenon

that, in India, big industries on the one hand and khadi and village industries on the other are both developing, without active opposition to each other" (p. 120). This observation is not upheld by facts. Many industries in the latter group have suffered adversely because of the big industries. It is remarkable that the author should have missed the oft-repeated complaint of those in charge of khadi and village industries against the unequal competition posed by the big industries which gives rise to the demand for the reservation of the spheres of production by the big, organised and the decentralised industries.

At places the discussion leaves something to be desired. For example on page 129 the author could have written one or two lines to describe the credit guarantee scheme for the small scale industries. Again on page 142 the author seeks to say too many things in a short paragraph which blocks understanding: "In many ways, the development of the industrial sector in India, during the last 20 years or so, is one of the most heartening features of economic development in India. It has attracted much criticism, much of it well merited, much of it ill-informed and ill-conceived. By and large, in terms of technical achievement in a developing country, it is no inconsiderable achievement. In terms of economic performance, if world prices are taken as a guide, it leaves much to be desired." Each statement in this paragraph has a certain validity; yet read together the conflicting statements leave the reader wondering.

These are, however, minor blemishes which might have been caused by the author's desire to keep to the existing size of the book. There are books on specific subjects addressed to those who want to study a subject to enhance their ability to understand the principal subject of their study, e.g. mathematics for economists, statistics for economists and so on. A book on economics specifically addressed to the administrators was thus only to be expected — very much so in

India, where the administrators in the government are increasingly involved in taking economic decisions, big and small. Not that all of them are in need of such an introductory treatise; for the government in this country employs a very large number of economists. At the same time it is undeniable that a sizeable section of the administrators has had no exposure to economics and would certainly benefit from such a book as this one. The discussion being clear and straightforward, others interested in the Indian economy would also find the book useful.

Subhash Chandra Sarkar

Why British economy declined

English Culture and the Decline of Industrial Society: 1850-1980

By M. J. Wiener

Cambridge University Press, 1981.

Fifty years ago one wondered why England was the home of the first industrial revolution. Today one looks for the causes of British economic decline. One feels that economists cannot account for it by an analysis of the classical factors of production like capital, labour and natural resources. This book, written by a historian of economics, traces the roots of the "the English Disease" to the nation's social structure and mental climate. Just as culture, society and ideology are central to development process, it is possible to seek an explanation of the fading of economic dynamism by exploring sentiments, attitudes and values.

among the British elite of civil servants, professional financiers and landed gentry in imaginative literature. The author shows that in the first industrial nation industrialisation was not at home. A patrician aristocracy succeeded in containing capitalism during the Victorian era just when the country was the workshop of the world. Quoting a don from one of C.P. Snow's novels (nine English traditions out of ten date from the latter half of the 19th century) the author finds that the English built a managerial culture that backed growth and developed an industrial behaviour that was suspicious of change, reluctant to innovate and energetic in maintaining the *status quo*. The articulate classes preferred their country to be a "green and pleasant land" and frequently viewed economic growth with suspicion and disdain. For the author an effective strategy to arrest and reverse the decline will have to begin in the cultural sphere.

As an explanation of England's continuing industrial decline this could be valid, but only partially. After all, economics is about rational choices, about allocation of scarce resources and cultural attitudes underlines always such choices. It would seem that Britain preferred to safeguard her financial supremacy in the world rather than adopt the financial structure to economic development. The book is certainly of interest to Indians whose bureaucratic elite has added some of these English attitudes to its already anti-development prejudices.

Cyril de Souza

BOOKS RECEIVED

Aspects of Indo-British Economic Relations: 1858-1898 by A.K. Banerjee, published by Oxford University Press, Post Box No. 31, Bombay 400 001; pages 255; price Rs 120.

A Dialogue with the Entrepreneur, published by Gujarat State Financial Corporation, 'Jaldarshan' Building, 1st Floor, Ashram Road, Navrangpura, Post Box No. 4030, Ahmedabad 380 009; pages 72; price not mentioned.

Budget Financing and Monetary Control, published by Director of Information, Organisation for Economic Co-operation and Development, Paris; pages 124; price not mentioned.

Science and Technology in India, edited by Vadilal Dagli, published by S.

Chand & Company Ltd, Ram Nagar, New Delhi 110 055; pages 338; price Rs 100.

Rural Economics for CALIB Part-I, by Mohan S. Patodiya, published by Bankers' Books Publishing House Pvt Ltd, 88, Indra Colony, Bani Park, Jaipur 302 006, Rajasthan; pages 315; price Rs 25.

Project Follow-up — Concept, Techniques and Problems, by S.P.S. Deol, published by Development Banking Centre, Management Development Institute, 'Jeevan Tara' Building, 5, Parliament Street, New Delhi 110 001; pages 167; price Rs 65.

Asian Trade and European Expansion in the Age of Mercantilism by Dietmar Rothermand, published by Manohar Publications, 2, Ansari Road, Daryaganj, New Delhi 110 002; pages 170; price Rs 75.

Unions in Conflict : A Comparative Study of Four South Indian Textile Centres 1918-1939 by Eamon Murphy, published by Manohar Publications, 2, Ansari Road, Daryaganj, New Delhi 110 002; pages 287; price Rs 80.

Statistics of Road Traffic Accidents in Europe 1980, United Nations Publications, can be obtained from United Nations, Sales Section, New York or Geneva; pages 106; price US \$ 10.

Annual Bulletin of Gas Statistics 1980, United Nations Publications, can be obtained from United Nations, Sales Section, New York, or Geneva; pages 107; price US \$ 10.

Half Yearly Bulletin of Electric Energy Statistics for Europe 1981, United Nations Publication, can be obtained from United Nations, Sales Section, New York or Geneva; pages 26; price US \$ 4.

United Nations Layout Key for Trade Documents, United Nations Publications, may be obtained from United Nations, Sales Section, New York or Geneva; pages 16; price US \$ 2.50

Quarterly Bulletin of Steel Statistics for Europe Volumes 3 & 4, United Nations Publication, can be obtained from United Nations, Sales Section, New York or Geneva; pages 66 of part 3 and pages 66 of part 4; price US \$ 7.00 of each.

Annual Bulletin of Transport Statistics for Europe 1980, United Nations Publication, can be obtained from United Nations, Sales Section, New York or Geneva; pages 243; price US \$ 17.

Annual Bulletin of Trade in Chemical Products, United Nations Publication, can be obtained from United Nations, Sales Section, New York, or Geneva, pages 285; price US \$ 21.

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STATE BANK OF SAURASHTRA

BALANCE SHEET FOR THE YEAR ENDED 31ST DECEMBER, 1981

As at 31st Dec., 1980	PROPERTY & ASSETS	As at 31st December, 1981		As at 31st Dec., 1980	CAPITAL & LIABILITIES	As at 31st December, 1981	
Rs.		Rs.	P.	Rs.		Rs.	P.
	1. Capital:				1. Cash:		
2,00,00,000	Authorised Capital — 2,00,000 Shares of Rs 100 each. Issued, Subscribed and paid-up Capital (Pursuant to Section 6(1) of the State Bank of Saurashtra Act, 1950 as amended by part V of the Third Schedule of the State Bank of India (Subsidiary Banks) Act, 1959)	2,00,00,000		26,10,53,954	In hand and with Reserve Bank of India and State Bank of India (including Foreign currency notes).		31,68,98,474.91
					2. Balance with Other Banks on Current Accounts:		
				2,30,06,236	i. In India	11,05,18,065.32	
				12,79,034	ii. Outside India	44,21,813.72	
1,00,00,000	1,00,000 Shares Rs 100 each fully paid.		1,00,00,000.00	2,42,85,270			11,49,39,879.04
				7,00,00,000	3. Money at Call and Short Notice:		7,90,00,000.00
1,51,00,000	2. Reserve Fund and Other Reserves: Reserve Fund as per last Balance Sheet.	1,58,00,000.00		67,98,60,372	4. Investments at or below Market Value:		
7,00,000	Add: Amount transferred from Profit and Loss Account.	10,00,000.00			i. Securities of the Central and State Governments and other Trustee Securities	79,00,80,772.10	
1,58,00,000			1,68,00,000.00		ii. Shares Fully paid Partly paid		
	3. Deposits and Other Accounts:				Rs. P. Rs. P.		
1,01,50,00	i. Fixed Deposits Rs. Ps.				a) Preference 4,60,405.00 —		
1,36,89,51,761	From Banks 1,45,05,000.00			8,33,875	b) Ordinary 2,27,970.00 —	6,88,375.00	
1,37,91,01,761	From Others 1,59,11,94,946.00	1,60,56,99,946.00		90,51,860	Total 6,88,375.00 —		
60,80,17,906		70,28,55,832.11		2,00,000	iii. Debentures or Bonds	85,80,932.50	
	ii. Savings Bank Deposits			68,99,46,107	iv. Other Investments	2,00,000.00	
15,19,30,155	iii. Current Accounts, Contingency Accounts etc.				v. Gold		79,95,50,079.60
36,50,08,678	From Banks 11,59,21,078.94						
51,69,38,833	From Others 41,29,21,323.97	52,88,42,402.91	2,83,73,98,181.02		5. Advances: (other than bad and doubtful debts for which Provision has been made to the satisfaction of the auditors)		
2,50,40,58,500					i) Loans, Cash Credits, overdrafts etc.		
	4. Borrowings from Other Banking Companies, Agents, etc.:			1,39,47,41,054	i. In India	1,74,02,83,221.47	
8,51,16,451	i. In India	13,14,50,748.00			ii. Outside India		
	ii. Outside India		13,14,50,748.00	15,88,72,745	ii) Bills discounted and Purchased (excluding Treasury Bills of the Central and State Governments)		
8,51,16,451				93,98,737	i. Payable in India	16,67,72,255.05	
	PARTICULARS:			1,56,30,12,536	ii. Payable outside India	1,57,16,061.60	1,92,27,71,538.12
8,26,16,451	i. Secured by Securities of advances assigned for refinance	9,76,50,748.00			PARTICULARS OF ADVANCES:		
25,00,000	ii. Unsecured	3,38,00,000.00		1,24,72,17,557	i) Debts considered good in res- pect of which the Bank is fully secured.	1,79,24,90,299.24	
4,48,82,093	5. Bills Payable:		4,85,78,427.80	6,37,81,165	ii) Debts considered good for which the Bank holds no other security than the debtors' personal security.	2,48,90,716.74	
	6. Bills for collection being Bills Receivable per contra:			25,20,13,814	iii) Debts considered good secured by the Personal liabilities of one or more Parties in addition to the personal security of the debtors.	10,53,90,522.14	
8,99,46,609	i. Payable in India	10,93,03,155.25			iv) Debts considered doubtful or bad not provided for.		
64,64,409	ii. Payable outside India	88,84,254.55	11,81,87,409.80	156,30,12,536	v) Debts due by Directors or officers of the Bank or any of them either severally or jointly with any other person.	51,70,336.43	
9,64,11,018				39,47,592	vi) Debts due by Companies or Firms in which the Directors of the Bank are interested as Directors, Partners or Managing Agents, or in case of Private Companies as Members.		
2,58,92,835	7. Other Liabilities:	29,72,80,814.83			vii) Maximum total amount of ad- vances including temporary advances made at any time dur- ing the year to Directors or Managers or Officers of the Bank or any of them either severally or jointly with any other person.	59,89,150.54	
	i. Branch Adjustments		29,72,80,814.83				
2,58,92,835	ii. Dividend						
8,90,15,839	8. Acceptances, Endorsements, & Other Obligations per contra:	7,86,99,597.08					
	9. Profit and Loss:						
4,056	Balance of profit as per last Balance Sheet	4,466.99					
7,00,411	Add: Profit for the year brought from profit and Loss Account	9,99,515.23					
7,04,467		10,03,982.22		43,97,105			
	Less Appropriations thereof:						
7,00,000	i. Transfer to Reserve Fund	10,00,000.00					
	ii. Amount set aside for Payment of Dividend.		3,982.22				
4,467							
2,87,11,81,203	Carried Forward	3,53,83,99,160.75		2,60,82,97,867	Carried Forward		3,23,31,59,971.67

STATE BANK OF SAURASHTRA

BALANCE SHEET FOR THE YEAR ENDED 31ST DECEMBER, 1981 - CONTD

As at 31st Dec., 1980	CAPITAL & LIABILITIES (Contd.)	As at 31st December, 1981	As at 31st Dec. 1980	PROPERTY AND ASSETS (Contd.)	As at 31st December, 1981
2,87,11,81,203	Brought Forward	3,53,83,99,160.75	2,60,82,97,867	Brought Forward	3,23,31,59,971.67
	10. Contingent Liabilities:				
2,37,550	a) Claims against the Bank not acknowledged as debts.	2,16,185.12	—	viii) Maximum total amount of advances including temporary advances granted during the year to Companies or Firms in which the Directors of the Bank are interested as Directors, Partners, or Managing Agents or in the case of Private Companies, as Members.	—
—	b) Guarantee given on behalf of Director or Officers of the Bank	—	—	ix) Due from Banking Companies	—
27,19,35,915	c) Guarantee given on behalf of others	29,65,56,638.26	—	6. Bills Receivable being Bills for Collection per contra:	
33,60,044	d) On Bills of Exchange Re-discounted	35,53,298.50	—	i) Payable in India	10,93,03,155.25
1,62,95,592	e) On outstanding Forward Exchange Contracts	2,84,82,151.37	—	ii) Payable outside India	88,84,254.55
—	f) Other monies for which the Bank is contingently liable	—	8,99,46,609		
	g) Liability that may be due for Income Tax and Interest Tax for various years against which provision of Rs 1,29,64,015/- and Rs 3,63,77,200/- has been made in the accounts.	—	64,64,409		
			9,64,11,018	7. Constituents' Liabilities for Accompanions, Endorsements & Other Obligations per contra:	11,81,87,409.80
			8,90,15,839		7,86,99,597.08
				8. Premises at Cost — Less Depreciation:	
			89,74,163	Cost upto 31st December, 1980	91,98,404.41
			2,24,241	Additions during the year	7,26,106.52
			91,98,404		99,24,510.93
			31,26,602	Less: Total Depreciation to date	34,30,192.80
			60,71,802		64,94,318.13
				9. Furniture and Fixtures at Cost less Depreciation:	
			1,54,64,755	Cost upto 31st December, 1980	166,82,106.87
				Additions (21,18,355.97)	
			12,17,352	Deductions (38,772.28) during the year	20,79,583.69
			1,66,82,107		1,87,61,690.56
			1,09,59,243	Less: Total Depreciation to date	1,21,08,556.53
			57,22,864		66,53,134.03
				10. Other Assets:	
			1,32,36,264	i) Interest accrued on Investments (Gross)	1,76,56,721.66
			3,83,426	ii) Motor Vehicles at cost less depreciation to date	6,17,238.98
			1,21,29,360	iii) Stationery, Stamps, Suspense etc.	1,48,21,935.45
			—	iv) Branch Adjustments	—
			68,738	v) Subsidy Receivable	68,738.00
			2,31,23,620	vi) Advance Payment of tax (including Tax deducted at source)	4,59,17,301.35
			1,27,40,725	vii) Adjusting Account of Interest Commission etc.	1,61,22,794.60
			39,79,680	viii) Commission accrued on Government turnover.	—
			6,56,61,813		9,52,04,730.04
2,87,11,81,203	TOTAL	3,53,83,99,160.75	2,87,11,81,203	TOTAL	3,53,83,99,160.75

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1981

Year ended 31st December, 1980	EXPENDITURE	Year ended 31st December, 1981	Year ended 31st December, 1980	INCOME (Less provisions made during the year for bad and doubtful debts and other usual and necessary provisions)	Year ended 31st December, 1981
Rs.		Rs. P.	Rs.		Rs. P.
14,67,18,625	1. Interest paid on Deposits, Borrowings etc.	17,82,76,287.46	22,49,68,083	1. Interest and Discount	26,91,11,321.00
8,63,64,921	2. Salaries, Allowances, Provident Fund and Gratuity	9,66,31,825.94	2,78,32,202	2. Commission, Exchange and Brokerage	3,07,53,916.57
37,272	3. Directors' Fees and Allowances	41,395.05	1,14,487	3. Rents	1,05,130.81
52,98,951	4. Rent, Taxes, Insurance, Lighting etc.	76,71,065.37		4. Net profit on sale of Investments, Gold and silver, Land, premises and other Assets (not credited to reserves or any particular Fund or Account)	17,733.99
4,83,329	5. Law Charges	4,91,744.82		5. Net Profit on Revaluation of Investments, Gold and silver, Land, premises and other Assets (not Credited to Reserves or any Particular Fund or Account).	—
24,38,115	6. Postage, Telegrams and Stamps	27,22,344.40	31,079	6. Income from non-banking assets and profit from sale of or dealing with such assets.	—
11,550	7. Auditors' Fees Audit Fees Rs 12000/- Other Services Rs 750/-	12,750.00	—	7. Other Receipts	11,23,426.31
18,84,333	8. Depreciation on the Repairs to Bank's property	21,28,776.55			
25,34,122	9. Stationery, printing, Advertisement etc. (includes Rs. 1,27,457.25 spent on public relations and publicity during the year)	27,96,496.96	9,27,170		
—	10. Loss from sale of or dealing with non-banking assets.	—			
74,01,393	11. Other Expenditure	93,39,326.90			
7,00,410	12. Balance of Profit	9,99,515.23			
25,38,73,021	TOTAL	30,11,11,528.68	25,38,73,021	TOTAL	30,11,11,528.68

STATE BANK OF SAURASHTRA

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1981 (CONTD)

As on 31-12-1980	PARTICULARS OF REMUNERATION RELATING TO MANAGING DIRECTOR	As on 31-12-1981		
Rs.		Rs.	P.	
41,500	1. Salaries	42,000.00		
9,710	2. Allowances	9,125.04		
13,320	3. Employer's contribution to Provident Fund, Pension Fund or any other Super-annuation Fund.	13,518.72		
—	4. Monetary value of any other benefits or perquisites	—	—	
	TOTAL	64,643.76		
64,530				

P. C. D. Nambiar
Chairman

J. Agarwal
I. P. Shah
B. V. Pandya
N. G. Mavalankar
M. B. Deshmukh
Rajinder Kumar
P. D. Trivedi
G. D. Bhatt
M. F. Tamboli
S. M. Patel

Directors

B. K. Ghose
Managing Director

R. H. Rajani
Chief Manager
Finance & Accounts

REPORT OF THE AUDITORS

We, the undersigned auditors of the State Bank of Saurashtra, appointed under Section 41 (1) of the State Bank of India (Subsidiary Banks), Act, 1959, report on the Balance Sheet and Accounts of the Banks as at 31st December, 1981.

We have examined the foregoing Balance sheet of the State Bank of Saurashtra as at 31st December, 1981, and the Profit and Loss Account of the Bank for the year ended upon the date with the Accounts relating thereto of the Head Office and the Darbargadh, Bhavnagar Branch and with the unaudited Returns submitted and certified by the Managers of other Branches, which Returns have been incorporated in the foregoing balance Sheet and Accounts.

We report that —

- (i) in our opinion, the Balance Sheet (read with and subject to note thereon mentioned in Annexure -A' and as per item (viii) mentioned below) is a full and fair one containing all the necessary particulars and is properly drawn up so as to exhibit a true and correct view of the affairs of the Bank, according to the best of our information and the explanations given to us and as shown by the books of the Bank:

- (ii) where we have called for any explanation or information such explanation and information have been given to us and have been found satisfactory:

- (iii) the transactions of the Bank which have come to our notice have been within the competence of the Bank:

- (iv) the Returns received from the Branches of the Bank have been found adequate for the purpose of our audit:

- (v) the Profit and Loss Account shows a true balance of profit for profit for the year covered by such Account:

- (vi) in our opinion the Balance Sheet and the Profit and Loss Account are drawn up in conformity with the law : and

- (vii) in our opinion Books of Account have been kept by the Bank required by law.

- (viii) the provisions of Section 418 of the Companies Act, 1956, have not been complied with.

Place: Ahmedabad
Date : 22-3-1982

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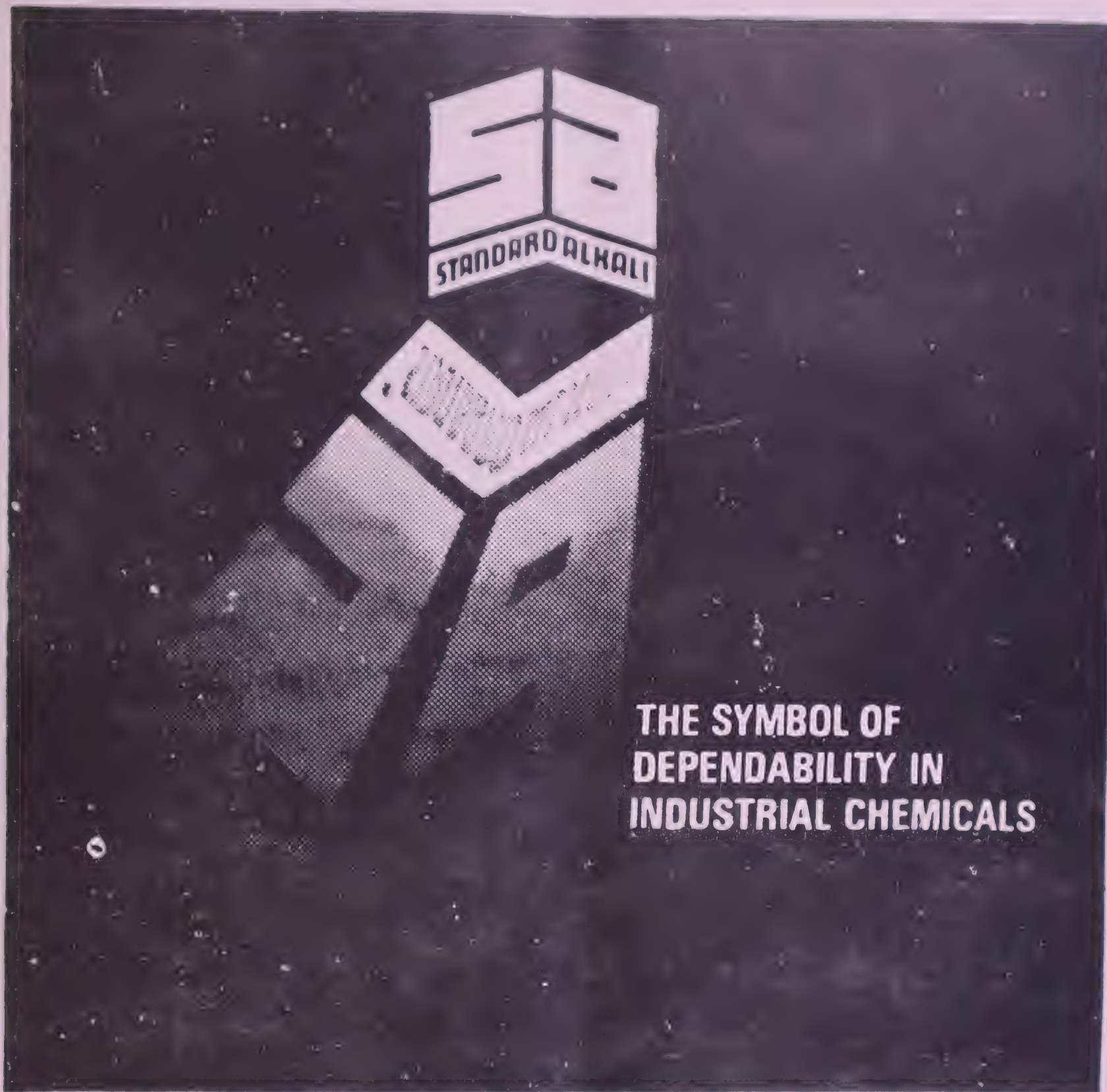
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CAPITAL MARKET

1 per cent equity likely for FERA companies

The Union Government is understood to be considering allowing a number of FERA companies, which have diluted their foreign equity to 40 per cent, to raise it to 51 per cent on their commitment to export at least 10 per cent of their total annual turnover and invest in the core sector industries. The present thinking of the government not only reflects a major reversal of its policy governing FERA companies but also a new approach regarding the implementation of the FERA guidelines. Mr L. K. Jha, chairman of the Economic Administration Reforms Commission, is understood to have pointed out in a report to the Prime Minister that the dilution of equity by FERA companies to 40 per cent has not in any way weakened their control on management.

Goenkas buy 14 per cent shares of Kamani Engineering

The Goenkas (R. P. group) have acquired a large proportion of the shares of the Kamani Engineering Corporation Ltd, representing about 14 per cent of the company's equity capital. The Kamani group, which started this company, is now left with about 14 per cent of the company's capital. Financial institutions and banks, which together hold 51 per cent of the shareholdings in the company, are currently managing its affairs through nominees. It is believed in some circles that eventually the control over the company may pass on to the Goenka group. The employees of the company who are resenting the entry of the private sector through backdoor methods feel that there is no reason why the company's management should change hands when the company has emerged out of the woods and is in an extremely comfortable position. To them, the move to dilute the controlling interests of the public sector institutions, will be a step detrimental to the interests of the 7,000 employees, financial institutions and the general public.

The sale of shareholdings in Kamani Engineering by the Kamani family to the

Goenka family in the meanwhile took a surprise twist on June 25 following an objection raised by Bank of India. Bank of India, which has custody of 95,000 shares of Kamani Engineering Corporation held by Kamani Tubes and kept with it, has objected to this sale in its submission before Justice Lentin of the Bombay High Court. As per the bank's argument, it had a lien on these shares and as such they could not be sold to anyone. Justice Lentin rejected Bank of India's plea. However, the bank could move a revision bench. The proceedings of the sales of KEC shares now stand adjourned.

Drug multinationals challenge RBI directive on equity dilution

Six leading drug multinationals have challenged the Reserve Bank of India's directive requiring them to bring down the majority foreign equity holdings as per the Foreign Exchange Regulation Act. The companies are: Burroughs Wellcome & Co (India) Pvt Ltd and Roche Products Ltd who were asked to dilute the foreign equity from 100 per cent to 74 per cent and 89 per cent respectively, as also Ciba-Geigy of India Ltd, Cynamid India Ltd, Johnson & Johnson Ltd and Pfizer Ltd who were asked to bring the equity down to 51 per cent, with 10 per cent export obligation, from their respective levels of 68.4 per cent, 55 per cent, 75 per cent and 70.20 per cent. RBI issued directives to nine companies to bring down their foreign equity holdings to different levels. Three other companies, namely, E. Merck (India) Ltd, Glaxo Laboratories (India) Ltd and Uni Sankyo Ltd have to dilute the equity to 40 per cent from the existing 51 per cent.

Ashok Leyland: Expansion progressing

Ashok Leyland Ltd has now concluded all arrangements to finance the foreign exchange required for their expansion plans. An agreement for £21 million as an ECGD backed project line of credit has been concluded with Grindlays Bank, London. It may be recalled that an agreement for a loan of US \$28 million was

signed with International Finance Corporation, Washington, in October 1981. The expansion programme is progressing according to schedule. The necessary industrial licence for the volume expansion has now been received by the company. Production during the year ended December 1981 was 15,000 vehicles.

Maruti Udyog Ltd to set up subsidiary

Maruti Udyog Ltd has decided to set up a subsidiary company, 'Maruti-Suzuki Ltd'. Suzuki of Japan, which was finally chosen by Maruti Udyog Ltd on March 26, as its foreign collaborator will be investing in the equity capital of this new company. This will be effected soon after the 10-year collaboration agreement with Suzuki of Japan is finalised and after the Public Investment Board (PIB) okays the investment in the project for the manufacture of various types of vehicles. The detailed project report of Maruti Udyog Ltd had not only envisaged the creation of the subsidiary company, but had also stipulated the phases in which the project for the manufacture of vehicles would be completed. Apart from equity investment to the extent of \$ 25 million, by Suzuki for the project, the latter will also supply technical know-how. However, this level of investment is likely to be spread over a period of years. The debt-equity ratio proposed for the new company, 'Maruti-Suzuki Ltd' will be 3:2. Suzuki of Japan will invest up to 40 per cent in the equity of the new company. This will be within the \$ 25 million promised by it as investment. Maruti Udyog Ltd will be contributing another 40 per cent by way of equity. The balance 20 per cent will be offered for subscription to financial institutions as well as the Indian public. The modalities regarding the offer of Maruti-Suzuki shares to the general public are currently being worked out by the Department of Banking in the Ministry of Finance. The collaboration with Suzuki is for the production of four classes of vehicles viz, a four-door passenger car, a pick-up van, a micro-bus and a four-wheel-drive for patrol duty by the police, military, etc.

CORPORATE SECTOR

In the market

Parke Davis (India)

Parke, Davis and Co of the USA, which holds currently about 83.33 per cent of holdings in Parke Davis (India) Ltd (Regd office: Saki Naka, Bombay 400 072) is voluntarily bringing down its holding to about 40 per cent. With this end in view the US company will be offering to the Indian investors on July 28, 1982 a total of 14.56 lakh equity shares of Rs 10 each at a premium of Rs 4 per share, totalling in value Rs 2,03,84,000. The subscription list will close on August 7, 1982 or earlier but not before July 30. Of the shares, 15,000 are reserved for firm allotment to Unit Trust of India and 50,000 shares have been reserved for the company's employees.

Mr D.D. Chopra, chairman of the company, told newsmen in Bombay that it showed ample faith of the US principal in the way the affairs of Parke Davis (India) were being run by a team of professional managers. The Indian company would continue to have access to the know-how of the US company and to all new formulations developed by it for introduction in the vast Indian market. Side by side Parke Davis (India)'s research and development efforts would continue in full swing and there would be no slack in them, Mr Chopra assured.

Parke Davis (India) is a leading producer of important life-saving drugs and pharmaceuticals. Its turnover rose to about Rs 24 crores in 1981 from Rs 15 crores in 1977 and net profit to Rs 89 lakhs from Rs 79 lakhs. The net worth last year stood at about Rs 5.49 crores. The company has declared a dividend of 23 per cent for the year ended November 30, 1981.

Ceramics (India)

Ceramics (India) Ltd. (Regd. office: A 65-66, RIICO Industrial Area, Bhiwadi, District Alwar, Rajasthan) will enter the capital market on July 21, 1982 with a public issue of 4,90,000 equity shares of Rs 10 each, totalling Rs 49 lakhs. The

proceeds of the issue will provide part of the funds for the Rs 2.94-crore project being set up at Bhiwadi for the manufacture of 5,500 tonnes annually of ceramic glazed tiles. According to Mr T.R. Swaminathan, managing director of the company, trial production has already commenced and commercial production is expected to begin shortly. The equity issue is being managed by the Indian Overseas Bank.

Malayalam Plantations

Malayalam Plantations (Holdings) Ltd, UK, is now in the capital market with an offer for sale to the Indian public 10.20 lakh equity shares of Rs 10 each (at Rs 14 per share) in Malayalam Plantations (India) Ltd (Registered office: 45/481, Bristow Road, Willington Island, Cochin 682 003) totalling Rs 1.02 crores. The company was incorporated in January 1978 for manufacture of tea and rubber. The object of the present issue is to reduce the foreign holdings in the company to 40 per cent.

Warner-Hindustan

Warner-Lambert Co, (USA), is now in the capital market with an offer for sale to the public 2.60 lakh equity shares of Rs 10 each in Warner-Hindustan Ltd (Registered office: Warangal Road, Uppal, Hyderabad 500 039) at a premium of Rs 7 per share, totalling Rs 44.20 lakhs. Warner-Hindustan Ltd was incorporated as a public limited company in November 1963 for the manufacture of pharmaceuticals. The object of the present offer for sale is to reduce the foreign holdings in the company to 40 per cent.

Harsh Chemicals

Harsh Chemicals Ltd (Registered office: 19, Esplanade Mansions, 14, Government Place East, Calcutta 700 069) entered the capital market on July 12 with an offer of 1.50 lakh equity shares of Rs 10 each, totalling Rs 15 lakhs. The company was incorporated as a public limited company in February 1982 to carry on the business of a consultancy firm.

Ambika Engineering Industries

Ambika Engineering Industries Ltd (Registered office: 52 Mittal Court, Jamnalal Bajaj Road, Nariman Point, Bombay 400 021) will enter the capital market on July 19 with an offer for 1.1 lakh equity shares of Rs 10 each, totalling Rs 14 lakhs. The subscription list will close on July 28 or earlier but not before July 21. The company was incorporated as a private limited company in July 1981 and was converted into a public limited company in February 1982. It is setting up a Rs 42-lakh industrial undertaking at Goregaon in Bombay for manufacture of engineering goods.

Other developments

Standard Mills: Rights debentures diversification

The Standard Mills, a leader in textile industry in the country, is making a rights issue of two lakhs secured convertible bonds of Rs 500 each for capital aggregating Rs 10 crores. The issue will open on July 14 and will close August 16, or later as may be decided by the board of directors.

Mr Rasesh Mafatlal, chairman of the company, explained that the issue was meant to finance part of the cost of expansion programmes and partly to meet its working capital requirements. The issue would also reduce the Mafatlal holdings from 46 per cent to about 30 per cent and facilitate the diversification and modernisation of the company. The promoting group will not subscribe to the issue, and the issue will be open only to equity holders and deposit holders.

Standard Mills, he explained, has a diversification and modernisation programme in view costing Rs 100 crores over the next five years. The first project would be a sponge iron plant with a capacity of 1.5 lakh tonnes per annum and costing Rs 35 crores. Government clearance for this project is awaited, and the plant was likely to be located in Andhra Pradesh though

nally Madhya Pradesh was considered. In the textile division, the number of spindles at the Dewas unit would be increased from 15,240 to 50,000 and looms from 300 to 500, all automatic. At the Bombay unit 184 sulzer weaving looms were planned to be installed by 1985 supported by the latest high speed preparatory machines.

The chemicals division which was doing well and which had one of the largest caustic soda plants, would also be diversified. Two more chemical plants could be set up.

Mr Mafatlal was hopeful that the Bombay textile mills' strike would be over in the next two or three weeks and that normal conditions in the working of the company's unit in Bombay would be restored. He said that during the year ending June 1982 the company's sales, which were affected by the textile strike, would be of the order of Rs 100 crores and that in the year July 1982 to June 1983 they would increase to Rs 140 to Rs 150 crores — Rs 40 crores of chemical division and Rs 100 crores of textiles.

The mill's convertible bond is of the face value of Rs 500, of which the convertible portion is Rs 200, the non-convertible portion Rs 300. Each bond will entitle the holder to receive one equity share of the face value of Rs 100 at a premium of Rs 100 on June 30, 1984. Mr Mafatlal pointed out that the Standard Mills equity share was currently quoted at Rs 300 and that as such there would be substantial appreciation on conversion. He emphasised that the current decline in equity prices was not relevant to the situation of investment in these bonds since the bonds would be converted only in June 1984 and conditions could be expected to change then, the non-convertible portion of Rs 300 will be redeemed in five equal instalments of Rs 60/- each in the 8th, 9th, 10th, 11th and 12th years.

E. Merck: Plea against equity dilution

Dr H. J. Langmann, chairman of E. Merck group of companies, a leading pharmaceutical multi-national, during his visit to Bombay, told newsmen that the Government of India policy towards foreign investment needed to be further liberalised to attract fresh foreign investment. He said that if this were done, there were excellent prospects for investment by multi-nationals in India.

The parent company E. Merck, Darmstadt (West Germany), holds 51 per cent

equity in E. Merck (India) and the Reserve Bank has asked to bring down this foreign equity holdings to 40 per cent by February next year. Dr Langmann gave an indication that this proposal would be resisted and said that it was unfair to ask the parent company to further reduce



Dr H.J. Langmann

its equity holdings since it had transferred all the technical know-how to the Indian company free of charge. He said that already a representation had been made against further dilution of foreign equity.

Mr V. J. H. Crasto, managing director of E. Merck (India), pointed out that, with the commissioning of the company's four projects under construction, the company's Appendix I turnover would be 95 per cent of the total turnover. This, he said, should enable the company even

to retain 74 per cent foreign equity as per the FERA guidelines.

The vitamin 'E' factory in Goa which will raise the total production of the company to 45 tonnes from 4 tonnes at present and expansion of fine chemicals at Taloja will absorb an investment of Rs 2 crores. A further Rs 1 crore will be invested in modernising the pharma plant at Taloja so as to conform to the requirements of the World Health Organisation.

Dr Langmann said that the parent company had developed a drug for curing alcoholics and it expected to introduce it in West Germany by the end of this year. He said that there were an estimated three million alcoholics in West Germany and the company considered it an obligation to find out a cure for this. A pre-requisite before introducing this drug was that the medical profession in a country was trained to tackle alcoholism.

Dr Langmann said that E. Merck (India) was free to export its products to any part of the world. But he pointed out that unless there was a substantial price differential, exports would not be possible since customers otherwise would prefer buying the parent company's products not because Indian quality was lower but because they had greater faith in the parent company. In this context it would seem creditable that E. Merck (India) exports have been increased from Rs 80.4 lakhs in 1980 to Rs 1.04 crores in 1981.

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Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rupees in lakhs)

Name of company	Adarsh Chemicals & Fertilisers		Coromandel Fertilisers		Dharamsi Morari Chemical Co.		Gujarat State Fertilizers Co.		Indian Explosives	
Industry Group	Fertilisers		Fertilisers		Fertilisers		Fertilisers		Fertilisers	
Item	Year ended December		Year ended December		Year ended December		Year ended December		Year ended September	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Liabilities (at the end of the year)										
1. Net worth (i+ii)	254.3	256.3	4,035.3	4,165.5	1,100.6	1,180.1	8,878.3	9,575.2	4,793.1	5,169.4
(i) Paid-up capital (a+b)	110.8	110.8	1,533.1	1,533.1	642.4	642.4	1,599.6	1,599.6	2,898.4	2,898.4
(a) Equity	85.8	85.8	1,533.1	1,533.1	642.4	642.4	1,599.6	1,599.6	2,898.4	2,898.4
(b) Preference	25.0	25.0	—	—	—	—	—	—	—	—
(ii) Reserves	143.5	145.5	2,502.2	2,632.4	458.2	537.7	7,278.7	7,975.6	1,894.7	2,271.0
2. Borrowings (i+ii)	253.6	281.0	329.4	1,315.2	425.7	725.3	3,235.1	3,955.5	5,005.2	8,069.5
(i) Long-term	98.8	139.6	279.3	983.3	111.3	111.3	777.9	783.9	3,269.0	4,143.9
(ii) Short-term	154.8	141.4	50.1	331.9	314.4	614.0	2,457.2	3,171.6	1,736.2	3,925.6
3. Non-current liabilities and provisions	—	—	—	—	12.5	19.1	—	—	—	—
4. Current liabilities and provisions	65.1	103.9	1,113.0	1,151.3	722.5	863.7	4,210.0	4,365.7	2,807.0	3,169.7
Assets (at the end of the year)										
5. Gross fixed assets	469.7	535.2	6,040.6	7,193.2	1,542.2	1,922.1	14,013.0	15,543.9	14,439.6	18,054.6
6. Less depreciation	159.1	186.7	4,612.8	4,663.2	935.9	1,075.4	8,119.3	8,742.9	6,630.8	7,114.3
7. Net fixed assets (5-6)	310.6	348.5	1,427.8	2,530.0	606.3	846.7	5,893.7	6,801.0	7,808.8	10,940.3
8. Current assets (i+ii+iii)	262.3	267.8	4,032.1	4,086.2	1,556.9	1,841.0	8,499.9	8,865.6	4,789.5	5,461.3
(i) Inventories	224.4	184.0	1,387.4	1,396.2	609.3	813.4	4,550.9	4,667.7	2,616.8	3,035.6
(ii) Receivables and loans and advances	31.7	74.2	2,463.2	2,438.9	870.6	960.8	3,437.5	3,333.5	1,955.2	2,049.2
(iii) Others	6.2	9.6	181.5	251.1	77.0	66.8	511.5	864.4	217.5	376.5
9. Other assets	0.1	24.9	17.8	15.8	98.1	100.5	1,929.8	2,229.8	7.0	7.0
Total: Liabilities (1 to 4) or Net assets (7 to 9)	573.0	641.2	5,477.7	6,632.0	2,261.3	2,788.2	16,323.4	17,896.4	12,605.3	16,408.6
Value of production and other income										
10. Sales/income net of excise duty, discounts and selling commission	550.8	756.3	5,835.0	7,901.4	3,877.1	4,506.3	10,769.8	15,006.8	7,496.4	12,795.3
11. Increase in stock of finished goods and work in progress	67.1	-37.9	43.1	124.0	0.8	234.6	1,101.9	-78.2	126.4	259.1
12. Value of production (10+11)	617.9	718.4	5,878.1	8,025.4	3,877.9	4,740.9	11,871.7	14,928.6	7,622.8	13,054.4
13. Other income	1.3	3.1	193.1	76.3	86.1	121.7	141.7	210.5	86.8	59.9
Expenditure										
14. Materials, stores and other mfg. expenses	460.9	521.3	4,181.2	5,778.1	2,623.7	3,467.8	8,110.0	10,747.2	4,378.0	8,223.3
15. Current repairs	27.5	22.6	189.9	268.8	161.9	151.2	417.7	683.6	581.8	796.7
16. Salaries and wages	36.1	52.9	276.1	311.8	379.4	430.5	630.2	727.1	946.2	1,105.1
17. Welfare expenses	3.3	5.4	29.0	38.1	34.5	39.0	55.9	91.6	211.9	239.6
18. Managerial remuneration	—	—	0.5	0.5	—	—	—	—	0.6	0.6
19. Other expenses	15.7	39.5	448.4	533.4	186.0	236.9	438.0	735.5	964.1	1,242.5
20. Depreciation	28.6	27.5	155.0	173.8	168.6	162.5	620.8	726.4	535.3	490.8
21. Other provisions	—	—	—	—	—	—	—	—	—	—
22. Operating profit (12+13)-(14 to 21)	47.1	52.3	791.1	997.2	409.9	374.7	1,740.8	1,427.7	91.7	1,015.7
23. Interest	33.6	42.5	32.8	133.1	69.6	110.3	198.2	477.2	150.6	389.6
24. Tax provision	—	—	375.0	450.0	161.0	75.0	1,062.0	260.0	84.0	—
25. Profit after tax (22-23-24)	13.5	9.8	383.3	414.1	179.3	189.4	480.6	690.5	-142.9	626.1
Appropriations										
26. Dividends (i+ii)	11.0	12.7	306.6	306.6	115.6	115.6	358.9	351.9	—	362.3
(i) Equity	8.6	10.3	306.6	306.6	115.6	115.6	351.9	351.9	—	362.3
(ii) Preference	2.4	2.4	—	—	—	—	7.0*	—	—	—
27. Profit retained (25-26)	2.5	-2.9	76.7	107.5	63.7	73.8	121.7	338.6	-142.9	263.8
Total: Value of production & other income (12+13) or Expenses and appropriations (14 to 22)	619.2	721.5	6,071.2	8,101.7	3,964.0	4,862.6	12,013.4	15,139.1	7,709.6	13,114.3
Operational indicators (per cent)										
(a) Net worth/total net assets	44.4	40.0	73.7	62.8	48.7	42.3	54.4	53.5	38.0	31.5
(b) Inventories/net sales	40.7	24.3	23.8	17.7	15.7	18.1	42.3	31.1	34.9	23.7
(c) Operating profit/net sales	8.6	6.9	13.6	12.6	10.6	8.3	16.2	9.5	1.2	7.9
(d) Operating profit/total net assets	8.2	8.2	14.4	15.0	18.1	13.4	10.7	8.0	0.7	6.2
(e) Profit after tax/net worth	5.3	3.8	9.5	9.9	16.3	16.0	5.4	7.2	—	12.1
(f) Equity earning/equity capital	12.9	8.6	25.0	27.0	27.9	29.5	29.6	43.2	—	21.6
(g) Equity dividend	10.0	12.0	20.0	20.0	18.0	18.0	22.0	22.0	—	12.5
(h) Equity dividend coverage (No. of times)	1.3	0.7	1.3	1.4	1.6	1.6	1.3	2.0	—	1.7
(i) Paid-up value per equity share (Rs.)	100.00	100.00	10.00	10.00	50.00	50.00	100.00	100.00	10.00	10.00
(j) Market price of an equity share (Rs.)	222.50	127.50	21.50	23.07	111.25	80.86	450.00	392.57	28.25	20.50
(k) Gross yield	4.5	9.4	9.3	8.7	8.1	11.1	4.9	5.6	—	6.1
(l) Gross fixed assets formation	15.0	13.9	4.3	19.1	10.0	24.6	12.2	10.9	46.8	25.0
(m) Debt/equity	0.39:1	0.54:1	0.07:1	0.24:1	0.10:1	0.09:1	0.09:1	0.08:1	0.68:1	0.80:1

NOTES: Category not applicable

Amount/Percentage is negligible

— Amount is nil

N.Q. Not quoted

N.A. Not available

The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of various items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments are sometimes made in other items also. Totals may not add up due to rounding off.

EQUITIES

THE WEEK'S PRICE RANGE

(Compiled by Commerce Research Bureau)

Daily margins in Century

Bombay, July 12

In a surprise move on the governing board of the Bombay Stock Exchange proposed daily margins both on bulls and bears in Century on July 6 evening at the rate of Rs 50 each with a view to curbing short selling and speculative trading. BSE, however, scrapped the bulls' margins abruptly on July 8, while keeping the margins on bears. This was decided at a hurriedly called board meeting on the noon of July 8 in view of an unprecedented crash in Century shares and with the resultant angry postures adopted by the marketmen towards BSE echelons. The price tumbled down to as low as Rs 800 on July 7 in kerb business from Rs 983.50 official closing on July 5.

At the same meeting BSE fixed floor prices in six volatile shares to prevent further bear hammering. The floor prices are Rs 825 in Century, Rs 365 in Tata Steel, Rs 300 in PAL, Rs 260 in Baroda Rayon, Rs 260 in ACC and Rs 365 in TELCO. The shake-out in Century affected the entire the market. The *havalas*, which was to have been fixed on July 8, could not be done. Likewise, the carry-forward margins (*badla*) which were to have been fixed on July 9, had been postponed to July 10 on the hopes that the *havalas* could be done on July 9. As the *havalas* could not be fixed even on July 9, the *badla* business would have to be deferred further.

Century was marked down by Rs 7 to Rs 825 officially from the previous official closing of Rs 982. TELCO by Rs 29 to Rs 373, ACC by Rs 9.50 to Rs 273 and PAL by Rs 5 to Rs 316. Baroda Rayon, however, rallied Rs 10 to Rs 375 following the BSE's decision to impose floor prices to arrest the downswing. GSFC hardened by Rs 23 to Rs 415 on informed fresh buying and Indian Dyestuff by Rs 9.50 to Rs 207.50 despite the sharp fall in kerb dealings. Tata Steel, however, held the ground at Rs 346. Likewise, Standard also held the ground.

In 'B' group Bajaj Auto suffered Rs 50 at Rs 1,300. Century Enka Rs 5 at Rs 610 and W.I. Erectors Rs 4 at Rs 56. Bajaj Tempo ruled steady while National Rayon gained Rs 10 at Rs 300 on influential support.

'A' group equity shares

	Closing quotations 10.7.82	High	Low	Closing quotations 10.7.82
A.C.C. (100)	282.50	285.00	260.00	273.00
Ashok Leyland (10)	35.00	36.00	35.00	36.00
Ballarpur Ind. (10)	39.50	39.00	38.50	39.00
Baroda Rayon (100)	365.00	379.00	362.00	375.00
Bihar Alloy (10)	11.75	11.75	11.00	11.25
Bombay Dyeing (25)	64.00	65.00	61.00	64.50
Century (100)	980.00	986.00	825.00	825.00
Colgate (10)	82.00	84.00	80.00	83.00
E.I. Hotel (10)	20.00	19.75	18.50	19.00
Garware Nylon (10)	41.50	41.00	40.50	41.00
Guj. State Fert. (100)	392.00	421.00	386.00	415.00
Gwalior Rayon (10)	50.25	51.00	49.50	51.00
Hind. Alum. (10)	31.00	31.00	29.50	29.50
Hind. Lever (10)	49.50	49.50	48.00	48.75
Hindustan Motor (10)	25.50	25.75	24.50	25.50
Indian Dyestuff (100)	198.00	207.50	195.00	207.50
Indian Organics (10)	28.00	28.50	27.50	28.50
Indian Rayon	94.00	95.00	88.00	93.00
ITC Ltd (10)	28.00	28.25	27.75	27.75
J.K. Synthetics (10)	57.00	59.50	57.00	59.00
Larsen & Toubro (10)	47.50	48.00	45.75	48.00
Mahindra & Mahindra (10)	40.00	40.50	38.00	40.00
Metal Box (10)	10.75*	11.50	11.00	11.00
Modi Rubber (10)	27.00	26.50	25.50	26.00
Motor Industries (100)	230.00	230.00	225.00	230.00
MRF (10)	19.00	19.00	18.50	19.00
Mukand Iron (10)	24.00	25.00	23.75	25.00
National Organic (100)	173.00	176.00	171.00	174.00
Nirlon (10)	34.50	35.00	33.50	34.75
Premier Auto (100)	321.00	322.00	305.00	316.00
Reliance Textile (10)	144.00	144.00	139.00	142.00
Scindia (20)	13.00	13.00	12.35	13.00
Shriram Fibres (10)	44.25	44.50	44.00	44.50
Siemens India (10)	36.00	36.50	35.00	36.50
Sirpur Paper (10)	18.75	19.25	18.75	19.25
South India Viscose (100)	200.00	202.50	197.50	200.00
Southern Petro. (10)	12.65	13.00	12.50	12.65
Standard Mills (100)	305.00	305.00	298.00	304.00
Straw Products (10)	37.50	38.00	37.00	38.00
Swadeshi Mills (100)	141.00*	—	—	141.00*
Tata Chemicals (10)	50.00	50.00	48.00	49.00
Tata Eng. & Loco (100)	400.00	401.00	372.00	373.00
Tata Oil (25)	51.00	52.00	50.00	52.00
Tata Steel (100)	347.00	357.00	332.00	346.00
Volta (10)	236.00	236.00	232.00	235.00
Zenith Steel Pipe (10)	47.50	48.50	46.50	48.50
Zuari Agro (10)	20.00	20.50	19.25	20.50

'B' group equity shares

Ahmed Advance (100)	171.25	195.00	172.50	195.00
Ahmedabad Elec. (100)	97.50*	108.00	105.00	108.00
Alkali & Chem. (10)	15.25*	—	—	15.25*
Amar Dye-Chem (100)	120.00	122.50	121.25	121.25
Andhra Valley (100)	102.00	—	—	102.00*
Asian Cables (100)	130.00	132.50	128.75	132.50
Assoc. Bearing (100)	382.50	387.50	382.50	387.50
Auto Products (10)	10.00*	—	—	10.00*
Bajaj Auto (100)	1350.00	1365.00	1300.00	1300.00
Bajaj Elect. (100)	165.00*	165.00	157.50	157.50
Bayer (India) (100)	190.00	187.50	180.00	185.00
BASF (10)	32.50	34.50	32.50	32.50
Best & Crompton (10)	30.00	30.25	30.00	30.00
Bhadrachalam Paper (10)	13.50	13.50	13.25	13.25
Bimetal Bearings (10)	26.25	26.50	26.00	26.50
Blue Star (10)	33.00	33.00	32.50	32.75
Bombay Burmah (25)	37.50	37.50	37.00	37.50
Bombay Oxygen (100)	110.00	110.00	110.00	110.00
Bombay Suburban (100)	137.50*	—	—	137.50*
Cadbury (10)	21.00	22.00	21.00	21.75
Camphor Allied (100)	177.50	180.00	170.00	170.00
Ceat Tyre (100)	190.00	195.00	187.50	195.00
Central India Spg. (50)	42.00	—	—	42.00*
Century Enka (100)	615.00	615.00	608.00	610.00
Chemical & Fibres (10)	17.25	17.75	17.25	17.75
Colour Chem (100)	185.00	185.00	180.00	185.00
Corom. Fert. (10)	23.75	23.75	23.00	23.00
Crompton Greaves (100)	333.75	333.75	332.50	332.50
Cyanamid India (10)	25.00	26.00	24.50	25.00
Dawn Mills (50)	59.00*	59.00	56.00	56.00
Elecon Eng. (10)	26.00*	—	—	26.00*
Empire Ind. (15)	18.00*	17.00	17.00	17.00

Innore Foundries (10)	48.25	49.00	48.00	48.00
Escorts (10)	48.25	48.50	47.75	48.00
Ferro Alloys (100)	195.00	195.00	182.50	187.50
FGP (10)	14.00	14.00	13.50	14.75
Finlay (100)	82.50*	82.50	65.00	—
Gammon India (10)	13.35	13.75	13.00	13.25
Garware Paints (10)	17.00	17.25	17.00	17.25
German Remedies (10)	33.00	33.25	34.00	35.25
Gokak (10)	13.50*	—	—	13.50*
Great E. Shipping (10)	14.50	14.50	14.00	14.00
Gujarat Alkali (10)	41.00	41.25	39.00	40.50
Gujarat Narmada (10)	9.75	10.00	9.75	10.00
Gujarat Steel Tubes (100)	275.00	282.50	270.00	270.00
Herdillia Chem (10)	20.25	20.25	20.25	20.25
Hind Brown (100)	258.75*	258.75	258.75	258.75
Hind Ferodo (10)	32.00*	33.00	32.00	33.00
Hindustan Sugar (100)	192.50	192.50	188.00	190.00
Hindustan Spg. (250)	170.00	165.00	165.00	165.00
Hoechst Dyes (10)	23.50*	23.50	22.50	23.00
IDL Chemicals (10)	14.00	14.50	14.00	14.50
Indian Explosive (10)	19.75	20.50	20.00	20.00
Indian Hotels (10)	55.00	55.00	53.00	54.00
Industrial Cable (10)	30.00*	—	—	30.00*
Ingersoll Rand (10)	149.00	148.00	143.00	146.00
J. K. Cotton (10)	10.50	—	—	10.50*
Jayant Paper (100)	135.00	135.00	130.00	130.00
Jyoti (10)	19.00	18.00	18.00	18.00
Kamani Eng. (10)	65.00	68.00	64.00	66.00
Khand. Ferro (100)	120.00	—	—	120.00*
Khatau (100)	200.00	200.00	195.00	195.00
Kirloskar Cummins (100)	602.50	602.50	587.50	590.00
Kirloskar Oil (10)	19.00	19.75	19.00	19.00
Kobinoor Mills (100)	56.00	56.00	53.00	53.00
Laxmi Vishnu (100)	50.00*	—	—	50.00*
Madura Coats (10)	15.25	15.25	15.00	15.00
Mafatlal Eng (100)	86.00	95.00	88.00	95.00
Mafatlal Ind. (125)	302.50	302.50	297.50	300.00
Mafatlal Fine (100)	170.00	167.50	160.00	162.50
Maharashtra Sugar (50)	36.00	—	—	36.00*
Mahindra Ugine (10)	37.00	37.50	36.00	36.00
Morarjee (100)	185.00	190.00	182.50	185.00
Mysore Cement (10)	26.50*	28.50	26.50	28.50
National Rayon (100)	320.00	330.00	310.00	330.00
New Gr. Eastern (100)	70.00*	—	—	70.00*
New Stand. Eng (100)	95.00	97.50	95.00	95.00
Otis Elevator (10)	26.00*	27.25	26.00	27.25
Pfizer (10)	23.25	23.75	22.50	23.00
Phaltan Sugar (50)	26.00*	—	—	26.00*
Podar Mills (10)	5.25*	—	—	5.25*
Polychem (50)	52.00	55.00	51.00	52.00
Polyolefins Ind. (100)	257.50	257.50	252.50	257.50
Premier Const. (60)	88.00*	—	—	88.00*
Raghuvanshi (100)	122.50*	—	—	122.50*
Rallis India (100)	165.00	167.50	165.00	166.25
Raymond Wool (10)	34.00	35.00	33.00	33.00
Rohit Pulp (100)	127.50*	—	—	127.50*
Sandoz (10)	26.00	26.50	25.80	25.50
Sandvik Asia (100)	296.25*	—	—	296.25*
Saurashtra Cement (100)	132.50*	—	—	132.50*
Shri Dig. Cement (100)	242.50*	217.50	212.00	212.00
Shree Niwas (100)	75.00*	—	—	75.00*
Shree Ram (100)	75.00*	75.00	60.00	60.00
Simplex (50)	60.00*	—	—	60.00*
SLM-Maneklal (100)	145.00	142.50	141.25	142.50
Special Steels (100)	75.00*	—	—	75.00*
Stretch fibres (10)	8.25*	8.00	7.75	8.00
Surat Electric (100)	104.00	—	—	104.00*
Swadeshi Polytex (10)	13.50	14.75	13.75	14.50
Swan Mills (100)	125.00	130.00	125.00	125.00
Synthe & Chem (100)	72.00	73.00	69.00	71.00
Tata Hydro (100)	108.00	109.00	93.00	109.00
Tata Mills (25)	18.00*	19.00	17.00	19.00
Tata Power (100)	111.00	111.00	110.00	111.00
Tata Yodogawa (100)	120.00	130.00	122.50	122.50
Tata Finlay (10)	10.50	11.00	9.50	10.50
Texmaco (10)	40.00*	—	—	40.00*
United Carbon (100)	180.00*	180.00	155.00	155.00*
Vulcan Laval (10)	26.50	26.50	26.00	26.50
Walchand Nagar (10)	25.50	25.00	25.00	25.00
Warner Hind. (10)	22.50	22.50	21.50	22.00
West Coast Paper (100)	90.00	90.00	90.00	90.00
Wimco (10)	11.10	11.00	10.75	10.75

Notes: Figures within brackets indicate the paid-up value of shares

Ex-dividend

(a) An asterisk mark after the quotation indicates the closing price on the last trading day and not the price at which the shares were traded on the column.

(b) The dash (—) in the column 'High' and 'Low' means that no official trading in the shares took place during the period under report.

Ex-dividend

(a) An asterisk mark after the quotation indicates the closing price on the last trading day and not the price at which the shares were traded on the column.

(b) The dash (—) in the column 'High' and 'Low' means that no official trading in the shares took place during the period under report.

NOTICE

It is hereby notified for the information of the public that MAFATLAL ENGINEERING INDUSTRIES LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for the production, supply, distribution or control of

High Speed Texturising Machine 24 Nos. per annum
High Speed Spinning Equipment 10 Nos. per annum

Other particulars of the proposed new undertaking are as under :

- i) Name of the proposed undertaking. : Mafatlal Barmag Engineering Company Limited (Proposed)
- ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking. : Mafatlal Engineering Industries Ltd — Public Limited Company. The proposed undertaking will be a joint venture of Mafatlal Engineering Industries Limited and Barmag Barmer Maschinenfabrik, West Germany.
- iii) Capital structure of the applicant person or authority. : Authorised Capital — Rs 10,00,00,000/- of Mafatlal Engineering Industries Ltd
Subscribed & Paid Up Capital — Rs 6,59,81,600/-
- Capital structure of the proposed undertaking : Authorised Capital — Rs 50 lakhs
- iv) Proposed location of the new undertaking : At Halol in the Backward District of Panchmahal in the state of Gujarat.
- v) Brief outline of the cost of project, the scheme and source of finance
- | | |
|------------------------------|---------------|
| 1) Estimated cost of Project | —Rs 150 lakhs |
| 2) Sources of finance — | |
| i) Share capital | —Rs 50 lakhs |
| ii) Borrowings | —Rs 100 lakhs |

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

For Mafatlal Engineering Industries Ltd.

MADHUKANT JOSHI

Secretary

Dated this day of
1st July, 1982.

NOTICE

It is hereby notified for the information of the public that MADURA COATS LIMITED, proposes to give to the Central Government in the Department of Company Affairs, New Delhi a notice under sub-section (1) of section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposals are as under :

- (i) Name of the body corporate owning the undertaking :

— MADURA COATS LIMITED,
New Jail Road,
Madurai-625 001 Tamil Nadu.

- (ii) Capital structure of the applicant undertaking.

(In Rs '000)

AUTHORISED

1,50,00,000 Equity Shares of Rs 10 each	15,00.00
15,000 — 11% Preference Shares of Rs 100/- each	15.00
	<hr/> 15,15.00

ISSUED AND SUBSCRIBED

1,16,31,545 Equity Shares of Rs 10 each fully paid up	11,63.15
15,000 — 11% Preference Shares of Rs 100 each fully paid up	15.00
	<hr/> 11,78.15

- (iii) The existing Mill of the applicant undertaking at Madurai, Tamil Nadu, has an installed capacity of 1,43,656 spindles and 297 looms, and produces industrial textiles including grey synthetic industrial fabrics. It is now proposed to provide facilities for dipping and heat-stretching of its range of grey synthetic industrial fabrics. There will not be any change in the licensed or installed capacities of spindles and looms at the Mill due to this proposed installation. The proposed installation is estimated to involve a capital expenditure of Rs 566 lacs which together with a margin money for working capital of Rs 27 lacs is proposed to be financed as follows :

SOURCE OF FINANCE	Rs in lakhs
Internal Cash Accruals	119.00
Foreign Currency Loan	264.00
Rupee loan from Banks & Financial Institutions.	210.00
	<hr/> 593.00

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of the interest therein.

M. G. PRATT
Managing Director.

Market Gossip

Will there be a tea shortfall?

TEA production in the major producing countries during the first four months of the current year has dropped by 17 million kg compared to that in the same period last year, according to Calcutta tea industry circles. Production in south India and Sri Lanka has been short by 9 million kg each and in Indonesia by one million kg. In Kenya, however, output during the period has been some 2.5 million kg more than that for the corresponding period last year. Meanwhile, production in Assam up to the end of April last was short by 20 per cent. Gardens in Doom Dooma area were having a shortfall of about 27 per cent. The crop is said to have picked up during mid-May, but the plucking dropped because of the rise in temperature and most gardens are still having a shortfall in production compared to last year.

More on imports

The executive committee of the Indian Chemicals Manufacturers' Association has expressed the fear that production cut may become unavoidable if the imports of chemicals continue indiscriminately. Imports of chemicals at abnormally low prices coupled with preferential rate of duty enjoyed by some products sold by certain countries had severely affected the capacity utilisation of the domestic producers of chemicals. Apparently there was a 30 to 50 per cent price advantage for imports: Saccharine costs Rs 70 per kg when imported while the domestic price is Rs 100 per kg. According to the president of ICMA, Indian producers of chemicals were not in a position to reduce prices.

Time to build up copper buffer stocks?

THE Minister of Mines and Energy of Peru has called on the four-member inter-governmental council of copper exporting countries (CIPEC) to centralise speculative manoeuvres

against copper prices which were at the lowest levels in 70 years. Of the 4 CIPEC members, two — Chile and Zambia — depended on copper for 50 per cent of their export earnings, while the dependence of Zaire was to the tune of 40 per cent and that of Peru 20 per cent. Since a sizeable portion of the Indian demand for copper has to be met from imports perhaps it is time to consider building up a buffer stock of copper by importing a large quantity at the favourable price obtaining in the international market. During 1978-79 India imported copper worth Rs 104 crores. On July 5 the price of copper in the London market was £ 803.5 per tonne compared with £ 1274.1 per tonne in February 1980.

Backing up tele-quotations

THE Government of India has extended the time limit to 15 days from existing seven days for backing up of telegraphic or letterhead quotations for global tenders. This concession has been granted in response to the complaint of the companies that a period of one week is too short for sending confirmatory quotations.

Castor Oil Council

THE Indian Institute of Foreign Trade has, after a market survey on castor oil derivatives in the USA, UK, West Germany and France, favoured the formation of a council for the promotion of castor oil derivatives. The proposed council would cooperate with the international castor oil association. A further suggestion has been made that India ought to reduce the price of castor oil to obtain a larger share of the world market.

Changes in export law

A committee, appointed by the Central Government, is to look into the working of the export inspection council and agencies, said Mr P. A. Sangma, Union

Deputy Minister of Commerce in Calcutta on June 23.

No sole sellers for bulk drugs

THE appointment of sole selling agents by any company for the sale of any category of bulk drugs has been banned from April 1 this year for a period of three years. In the view of the Company Law Board, the demand and supply position of bulk drugs is such as not to require any special effort to create a market for them.

Non-ferrous metals prices cut

THE Minerals and Metals Trading Corporation has been authorised by the Government's pricing committee to reduce the prices of copper wire bars and rods as well as lead and tin from July 1. The new prices are electrolytic copper wire bars Rs 27,500 a tonne compared with Rs 29,300 earlier, copper wire rods Rs 29,500 a ton (Rs 31,300 tonne), pig lead Rs 10,200 per tonne (Rs 10,700) and tin Rs 2 lakhs per tonne (Rs 2,15,000).

Plan for overseas exhibitions

AN ambitious plan for participation in international trade fairs and exhibitions abroad and exclusive Indian exhibitions overseas during the next five years has been drawn up by the Trade Fair Authority of India (TFAI). The plan is awaiting the approval of the Government of India. The plan divides the world into five zones and the TFAI proposes to hold one "Jumbo fair" (occupying between 10,000 sq mt. and 15,000 sq mt.) in one zone every year. More exhibitions are proposed to be held in West Asia, Africa and the South-East Asian region. TFAI proposes to participate in 55 overseas fairs during 1983-84 and in 75 fairs during 1985-86.

INDIA RADIATORS LIMITED

Regd. Office : "South India House", 36-40 Armenian Street,
MADRAS 600 001

NOTICE

It is hereby notified for the information of the public that INDIA RADIATORS LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under Sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act 1969 for approval for the establishment of a new unit of this Company under the existing form of Management for substantial expansion for the production of 52,000 Nos. Radiators per annum. Other particulars of the proposed undertaking/activity are as under :

- | | | | | | | | |
|--|--|--------------------------|--------------|--------------------------|--------------|-----------------------|--------------|
| (i) Name of the proposed undertaking | : The proposed undertaking will be a new unit of
INDIA RADIATORS LIMITED | | | | | | |
| (ii) Name(s) of person(s) or authority/authorities
proposing to establish the new undertaking | : INDIA RADIATORS LIMITED, a Public Limited
Company managed by the Managing Director under
the control and supervision of the Board of Directors. | | | | | | |
| (iii) Capital structure of the applicant person or
authority and of the proposed undertaking | <p>: Existing</p> <p>AUTHORISED CAPITAL:
Rs 50,00,000 made up of 5,00,000 Equity Shares
of Rs 10/- each.</p> <p>ISSUED, SUBSCRIBED AND
PAID UP CAPITAL Rs 34,98,875</p> <p>Proposed</p> <table border="0" style="width: 100%;"> <tr> <td>AUTHORISED CAPITAL</td> <td style="text-align: right;">Rs 75,00,000</td> </tr> <tr> <td>SUBSCRIBED CAPITAL</td> <td style="text-align: right;">Rs 60,00,000</td> </tr> <tr> <td>PAID UP CAPITAL</td> <td style="text-align: right;">Rs 60,00,000</td> </tr> </table> | AUTHORISED CAPITAL | Rs 75,00,000 | SUBSCRIBED CAPITAL | Rs 60,00,000 | PAID UP CAPITAL | Rs 60,00,000 |
| AUTHORISED CAPITAL | Rs 75,00,000 | | | | | | |
| SUBSCRIBED CAPITAL | Rs 60,00,000 | | | | | | |
| PAID UP CAPITAL | Rs 60,00,000 | | | | | | |
| (iv) Proposed location of the new undertaking | : Central Government notified backward area in the
State of Tamil Nadu/Maharashtra/Gujarat | | | | | | |

(v) Brief outline of the cost of the project, the scheme of finance

Cost of the Project:

					(Rupees in Lakhs)
Land	}	..	..	..	10.00
Buildings					
Plant and Machinery & Equipment:					
(a) Indigenous	..	..	..	..	20.00
(b) Imported	..	..	..	..	5.00
Working Capital	..	..	..	..	95.00
					<u>130.00</u>

Scheme :

It is proposed to manufacture 52,000 Nos. Radiators on Single Shift operation.

Source of finance:

					(Rupees in Lakhs)
Increase in Share Capital	..	..	..	..	25.00
Long Term Loan:					
Term Loan from Financial Institutions	..			..	20.00
Public Deposits	..	..		..	10.00
Loan facilities from Banks to meet Working Capital	..	..		..	75.00
					<u>130.00</u>

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this notice intimating his views on the proposal and indicating the nature of his interest therein.

For INDIA RADIATORS LIMITED

B. V. BALASUBRAMANIAN
Secretary

Dated. this 17 day of July 1982

NOTICE

It is hereby notified for the information of the public that DEMPO DAIRY INDUSTRIES LIMITED proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities. Brief particulars of the proposals are as under :

1) Name(s) of the person(s)/body corporate owning the undertaking :
DEMPO DAIRY INDUSTRIES LIMITED.

2) Capital structure of the applicant undertaking:

AUTHORISED CAPITAL :

	<i>Rupees</i>
Equity : 15,00,000 shares of Rs 10 each	1,50,00,000
Preference : 50,000 shares of Rs 100 each	50,00,000
	<u>2,00,00,000</u>

ISSUED, SUBSCRIBED & PAID-UP CAPITAL :

Equity : 9,50,000 shares of Rs 10 each	95,00,000
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3) Details of the proposed substantial expansion :

(a) Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:

INSTANT COFFEE

(b) In the case of substantial expansion of existing activities :

- | | |
|-------------------------------------|--------------------------|
| i) Name of goods | |
| ii) Capacity before expansion | Not applicable as the |
| iii) Expansion proposed | proposed substantial |
| iv) Location of the project for | expansion is by |
| substantial expansion | production of new goods. |
| v) Brief outline of the cost of the | |
| project, the scheme and sources | |
| of finance. | |

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

VASUDEVA V. DEMPO
Director.

Dated this 5th day of July 1982.

NOTICE

It is hereby notified for the information of the public that NEW STANDARD ENGINEERING COMPANY LIMITED proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities to be carried out at its Textile Division, i.e. Shree Vrajesh Textile Mills Private Limited, Petlad, Near Anand, Gujarat. Brief particulars of the proposals are as under :

1) Name of the person/body corporate owning the undertaking.
NEW STANDARD ENGINEERING COMPANY LIMITED.

2) Capital structure of the applicant undertaking (as at 31 March 1981)

Authorised Capital	Rs 5,00,00,000/-
Issued, subscribed & Paid-up Capital	
Equity	Rs 1,58,94,400/-
Pref.	Rs 5,00,000/-

3) Details of the proposed substantial expansion.

(a) Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered.

NOT APPLICABLE

(b) In the case of substantial expansion of existing activities :

i. *Name of goods:*

Installation of additional spindleage at Shree Vrajesh Textile Mills.

ii. *Capacity before expansion :*

25,552 spindles

iii. *Expansion proposed :*

Installation of additional 24,448 spindles so as to have an aggregate of 50,000 spindles to run the Mill on an economically viable level.

iv) *Location of the project for substantial expansion. :*

Shree Vrajesh Textile Mills,
Station Road, Petlad, Near Anand, GUJARAT.

vi) *Brief outline of the cost of the project, the scheme and source of finance :*

The total cost of the project is Rs 500.00 lakhs.

The source of finance will be partly from internal sources and partly through loans from financial institutions, and deferred credits through company's bankers.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

MOHAN PARIKH
Secretary

(Name and designation of the
Principal Officer of the
Undertaking issuing the Notice)

Dated this seventh day
of July 1982.

COMMODITIES

Grains quiet

Bombay, July 12

A quiet tendency marked trading in grains in local market last week. In cereals, wheat (Sehori pissi) fetched Rs 275-350 per quintal an increase of rupees two per quintal during the week. Sellers were reserved on account of limited supplies. The Sonakalyan variety declined by Rs 10 to Rs 205-210 per quintal.

Activity in rice was limited as supplies were comfortable. Sellers were keen on offering at the current levels. Demand was restricted. The Basmati variety was traded at Rs 750-825 per quintal and maize at Rs 162 per quintal. Barley declined by Rs 10 to Rs 95-100 per quintal.

Among pulses, gram dal firmed up by Rs 5 to Rs 335-350 per quintal on account of firm advices from producing centres. Sellers were reserved. Moong, urad and tur dal ruled steady during the week. Moong (Chumki) was offered at Rs 350-370 per quintal. urad (moglai) at Rs 265-275 per quintal and tur dal at Rs 400-560 per quintal. Masoor dal hardened by Rs 3 at Rs 370-385 per quintal.

Sugar hardens

Bombay, July 12

Sugar prices hardened during the last week with revival of demand from local and upcountry buyers. The price of sugar C-30 grade fetched Rs 8 more to Rs 526-540 per quintal. The State factories quoted higher prices in the

range of Rs 505-520 per quintal for both grades. Sugar stocks with the city dealers improved to 4,417 bags. The khandsari stock at the weekend were 33 bags. The price of sugar C-30 grade on July 10, 1982 was lower by Rs 109 per quintal than that on the corresponding date a year ago.

Rising trend in yarn

Bombay, July 12

A rising trend was noticed in the local yarn market during the past week. The prices of 150D NRC, 120D NRC, 150D CR, 120D CR and 100D SIV increased by 29 paise, Rs 1.94, 55 paise, 55 paise and Rs 4.40 to Rs 54.52, Rs 57.82, Rs 54.23, Rs 58.37 and Rs 68.28 respectively. The price of 150D Acetate, however, remained steady at Rs 49.01.

Castor, oil react

Bombay, July 9

After the recent firmness, castor-seed and its oil reacted in the oilseeds market in view of the comfortable supply position and poor export inquiries. Castorseed Madras small and Kanpur bold declined by Rs 6 each to Rs 346 and Rs 336 per 100 kg. Castor commercial oil dropped by a rupee to Rs 73.50 and castor BSS oil by Rs 2 to Rs 79.75.

Groundnut remained steady. Karad bold was steady at Rs 615, Saurashtra bold at Rs 620 and Saurashtra quality at Rs 620 per 100 kg respectively.

Groundnut oil was also steady at Rs 140.92 per 10 kg in the absence of selling pressure.

Linseed bold neglected at the previous rates of Rs 460 per 100 kg while its oil was quiet at Rs 109.20 against Rs 109.72 per 10 kg last week.

Cakes lost modest ground on account of lack of demand coupled with selling pressure. Groundnut expeller and de-oil fell by Rs 25 each to Rs 1,800 and Rs 1,400 per tonne. Castor and cottonseed, however, held the ground.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:—

	9-7-1982	2-7-1982
G. nut Karad bold	615.00	615.00
G. nut oil	140.92	140.92
Cast. Md. Sm.	346.00	352.00
Cast. oil com.	73.50	74.50
Cast. oil BSS	79.75	81.75
Linseed bold	460.00	460.00
Linseed oil	109.20	109.72

Cotton: Improved sentiment

Bombay, July 9

Following the upward revision of its selling prices by the Maharashtra

State Cooperative Marketing Federation by Rs 80 per candy, there has been some change for the better in the market sentiment. How long this will last is to be seen.

The Centre's announcement of a package deal to induce textile workers in Bombay to resume duty has had no effect whatsoever. Meanwhile, there are speculations that when six months of the strike is completed there will be an automatic derecognition of the existing union.

Cotton growers in Maharashtra are anxiously awaiting the Government decision about the renewal of the monopoly purchases scheme. The usual drill with the Reserve Bank of India will follow before any decision in the matter is taken.

The Indian Cotton Mill's Federation has reiterated the need for the creation of a modernisation reserve fund to expedite plans for rehabilitating the mill industry. This subject has become of particular significance to all the mills in Bombay that have incurred a heavy loss on account of the strike for nearly six months.

The following has been the trend

NATIONAL ORGANIC CHEMICAL INDUSTRIES LIMITED

Registered Office:

Mafatlal Centre, Nariman Point, Bombay 400 021

To
The Members of
National Organic Chemical Industries Limited

NOTICE

NOTICE is hereby given pursuant to section 154 and other applicable provisions, if any, of the Companies Act, 1956 that the Board of Directors of the Company have fixed Thursday the 29th July, 1982 as the date for taking a record of the shareholders of the Company, who would be entitled to the secured non-convertible debentures being issued by the Company on rights basis.

By Order of the Board,
For NATIONAL ORGANIC
CHEMICAL INDUSTRIES
LIMITED

Bombay
Dated: 1st July, 1982

(Harshad Thakore)
Secretary

HOW COMMODITIES MOVED

(Rs per quintal*)

Commodity	Market	July 10, 1982	A week ago
Groundnut	(Rajkot)	467	467
Rapeseed	(Kanpur)	383	383
Sesamum	(Delhi)	683	673
Castorseed	(Kanpur)	285	263
Linseed	(Kanpur)	436	439
Sugar	(Bombay)	(a) 533	525
Cotton	(Bombay)	(b) 3,175	3,175
Jute	(Calcutta)	(c) 245	245
Aluminium	(Bombay)	(d) 1,600	
Copper	(Bombay)	(e) 2,970	2,950
Lead	(Calcutta)	(f) 1,150	1,100
Zinc	(Calcutta)	(g) 1,680	1,1680
Gold	(Bombay)	(h) 1,620	1,640
Silver	(Bombay)	(i) 2,550	2,505
Caustic soda	(Bombay)	(j) 603	603
Soda ash	(Bombay)	(k) 250	234

in terms of 10 gm for gold, kg for silver and candy for cotton

(a) C-30, (b) C-73, (c) W-5, (d) Scrap, (e) Wire bar, (f) Ingot, (g) Hard spelter, (h) Standard, (i) .996, (j) Flakes, and (k) Tata

LARSEN & TOUBRO LIMITED**NOTICE**

It is hereby notified for the information of public that LARSEN & TOUBRO LIMITED proposes to give to the Central Government in the Department of Company Affairs, New Delhi a notice under sub-section (1) of Section 21 of the Monopolies & Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under :

1. *Name(s) of person(s)/body corporate owning the undertaking :*
LARSEN & TOUBRO LIMITED

2. *Capital structure of the applicant undertaking :*

	As on 1-4-1982
Authorised capital	Rs 35,00,00,000
Issued Capital	Rs 24,17,33,940
Subscribed Capital	Rs 24,17,23,589

3. *Details of the proposed substantial expansion.*

(a) Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered

Not Applicable

(b) In the case of substantial expansion of the existing activities :—

i) Name of goods :

Portland Cement

ii) Capacity before expansion :

11.09 Lakh tonnes per annum of Portland Cement. The Project which is under implementation is expected to go on-stream around May 1983.

iii) Expansion proposed :

11.09 Lakh tonnes per annum. (Total installed capacity after expansion — 22.18 Lakh tonnes of Portland Cement per annum).

iv) Location of Project for substantial expansion :

AWARPUR

Tehsil — Rajura

District — Chandrapur

State — Maharashtra

v) Brief outline of the cost of the Project, the scheme and sources of finance.

The estimated cost of the Project is Rs 110 crores which will be partly financed by own funds and partly by borrowings.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi within 14 days from the date of publication of this Notice intimating his views on the proposal and indicating the nature of his interest therein.

Dated July 9, 1982.

Registered Office

L & T House,

Narottam Morarjee Marg,

Ballard Estate

BOMBAY 400 038.

(S. D. KULKARNI)

General Manager (Finance)

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- **INSPECTION & WORKSHOP GDE** As per BS : 888
- **20 PIECES UNIVERSAL ACCESSORY SET** As per IS : 4440/ BS : 888
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- After-sale service offered

For details, please, write to:

The Senior Inspector of Armaments
INSPECTORATE OF ARMAMENTS
COSSIPORE, CALCUTTA: 700002

Tele: 528284, 523211 Telex: 021-2349 GUNIN
Gram: INSPECARM Cossipore, Calcutta: 2

DIRECTORATE OF INSPECTION ARMAMENTS
GOVERNMENT OF INDIA MINISTRY OF DEFENCE

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—davp 82/97—

of prices of some of the leading varieties of cotton:

ARE operated selectively. There was some export enquiry for pekoe dusts.

	(Rs per candy)	
	July 9	July 2
Kalyan	3,700—3,850	3,550—3,600
Maurashtra	3,800—4,000	3,700—3,900
Maharashtra H4	4,850	4,800
Maharashtra Y1	4,400	4,400
Maharashtra Varalaxmi	4,800	4,800
Maharashtra AK	4,350	..
Maharashtra 1007	4,700	..
MP Y1	4,100—4,200	4,100—4,200
MP A 5/19	4,400	..
MP 1007	4,650—4,700	..
MP Varalaxmi	4,800—4,900	..
MC V 5 Guntur	5,400—5,450	5,000—5,300

Tea: Fair demand for CTC

Calcutta, July 5

At the weekly tea auctions here the offerings of 13,876 packages of CTC teas met fair demand. Clean good Dooars brokens, came to a fully firm to dearer market. Remaining Dooars brokens, however, were barely steady. Medium and better Assam brokens appreciated in value. Best Assams, however, met with limited enquiry and sold at easier rates. The buyers for Gujarat were fairly active with fair support from the blenders. The Punjab buyers were subdued. The USSR lent some support, while the buyers for Canada operated selectively. All CTC fannings came to a fully firm to dearer market. Dooars fannings were well supported by the Gujarat buyers. The blenders and ARE lent fair support while selective enquiry was forthcoming from the UK buyers and the TTCL.

The 7,137 packages of Darjeelings on offer met good demand with improved liquoring Darjeeling whole leaf grades coming to a dearer market meeting keen competition from the West German buyers. The highest price realised in the sale was for a line of Disheehat which was sold at Rs 204 per kg. Clean, medium varieties continued to be supported by the USSR at steady rates, while the plainer sorts met with support from one of the blenders. Medium brokens and fannings tended slightly easier, meeting with enquiry from the local dealers as well as the U.K. with some support from the USSR on the clean larger brokens. Selected good liquoring sorts met with good support from the West German and continental buyers and sold well.

The 8,607 packages offered at the first sale found All CTC dusts coming to a fully firm to dearer market, with good support forthcoming from the blenders, Gujarat and local buyers. The

Orthodox dusts followed the trend of the market and were fully firm to dearer with quality. These were readily absorbed by the blenders.

Wheat, maize drift lower

Hapur, July 12

Barring rice, which ruled steady, other grains and pulses recorded a downward trend. Wheat farm, gram, maize, peas and other cereals drifted lower.

After an early advance wheat was subdued towards the weekend thanks to better receipts from rural areas. Arrivals at government purchasing centres were almost negligible as most of the arrivals were reaching the mandis. Some wheat was being despatched to Bihar and Gujarat against permits. Rain affected wheat was reaching mostly a government purchasing centres. Wheat average was quoted at Rs 142-150, best dara Rs 175-182 and white farm at Rs 200-210 per quintal. Rain affected wheat was quoted at Rs 125-130 per quintal.

Rice however recorded a steadier trend and prices of inferior rice quality hardened by Rs 5 per quintal on tight supply position following small receipts from Gangapar districts. Basmati sela was quoted at Rs 480-500, mainpuri sela Rs 288-290 and gadda Rs 245-250 per quintal.

In coarse grains, gram ruled quiet at Rs 230-280 per quintal according to quality on easy advices from M.P. and Punjab coupled with meagre stocks position with trade. Maize was down by Rs 5 per quintal to be quoted at Rs 130-142 per quintal on increased arrivals of new crop. Barley, bejhar and juwar also tended to ease on poor buying support. In pulses, peas declined by Rs 5 per quintal on slack buying inquiry from the south. Peas dara green was quoted at Rs 240-250 and white farm at 260-270 per quintal. Arhar, moong and gramdal also drifted lower in sympathy with gram and peas. Prevailing prices (per quintal) were: Barley Rs 105-110, bejhar Rs 112-120,

maize Rs 130-142, bajra Rs 160-162, juwar Rs 165-185, guwar Rs 150-240, methi Rs 275-285, peasdal Rs 300-315, arhar Rs 270-280, dal Rs 400-440, urd Rs 310-330, dal Rs 410-425, moong Rs 290-300, dal Rs 390-400, masoor Rs 265-270, dal Rs 350-370 and gramdal Rs 305-310.

Gold down, silver up

Bombay, July 12

A fall in the prices of gold and a rise in silver marked trading in the Bombay bullion market during the past week. Standard mint gold opened at

Rs 1,635 per 10 gms and closed lower at Rs 1,620 per 10 gms. Ready silver (.999 fineness) which opened at Rs 2,510 per kg dropped to the week's low of Rs 2,500 per kg on July 7 but firmed up to close at Rs 2,550 per kg.

Money easy

Bombay, July 12

Conditions in the Bombay short-term money market were easy during the past week. Interest rates opened at 5 per cent and dropped to the week's low of 4 per cent during the week. However, the rates firmed up once again to close at 6 per cent.

NOTICE

BHARAT GEARS LIMITED

It is hereby notified for the information of the public that BHARAT GEARS LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under Sub-section 2 of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for the approval for establishment of a new undertaking for manufacturing Polyester Filament Yarn. The annual turnover is expected to be Rs 60 crores at full capacity. Other particulars of the proposed new undertaking are as under:

1 Name of the proposed undertaking:

A new name will be given to the undertaking.

2. Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body corporate furnish details of its management structure together with those of the proposed undertaking.

Bharat Gears Ltd. New Delhi. It is managed by its Managing Director under supervision of Board of Directors. The new Company will be managed by a Managing Director under supervision of Board of Directors.

3. Capital structure of the applicant person or authority and of the proposed undertaking.

	(Rs. in Crores)	
	Applicant	Proposed Undertaking
— Authorised Capital	5.00	12.00
— Issued, Subscribed & Paid up Capital		
— Preference	0.30	—
— Equity	1.91	11.25

4. Proposed location of the new undertaking:

A suitable backward district in the State of Uttar Pradesh

5. Brief outline of the cost of the project, the scheme, and source of finance.

The estimated capital outlay is Rs 45 crores which is proposed to be financed by Share Capital and long term loans.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of interest therein.

Dated 20th June, 1982

Registered Office:

B-82, Himalaya House,
23 Kasturba Gandhi Marg,
New Delhi-110 001

For BHARAT GEARS LIMITED

(S. S. GULATI)
Secretary

NOTICES

CIBA-GEIGY OF INDIA LIMITED

NOTICE

It is hereby notified for the information of the public that CIBA-GEIGY of India Limited, 14, J. Tata Road, Bombay-400 020 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under:

1. Name(s) of person(s)/body corporate owning the undertaking: CIBA-GEIGY of India Limited.

2. Capital structure of the applicant undertaking: The authorised and paid-up capital of the Company as on 31-12-1981 is Rs 138,937,500 divided into 1,389,375 equity shares of Rs 100/- each.

3. Details of the proposed substantial expansion: (a) *Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* Manufacture of the fungicide Metalaxyl Technical and formulations based on Metalaxyl Technical. (b) *In the case of substantial expansion of existing activities:* (i) Name of goods: The Company is currently manufacturing pesticides at its Goa plant where it is now proposed to undertake the manufacture of the fungicide Metalaxyl Technical and formulations based on Metalaxyl Technical. (ii) Capacity before expansion: Nil. (iii) Expansion proposed: Metalaxyl Technical: 500 tonnes per annum; Formulations based on Metalaxyl Technical: Equivalent to 500 tonnes Technical material per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the project, the scheme and sources of finance: The estimated capital investment of Rs 30.0 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public.

2. Any person interested in the matter, may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indi-

cating the nature of his interest therein.

K. M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited

Bombay, 30-6-1982

NOTICE

It is hereby notified for the information of the public that CIBA-GEIGY of India Limited, 14, J. Tata Road, Bombay-400 020 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under:

1. Name(s) of person(s)/body corporate owning the undertaking: CIBA-GEIGY of India Limited.

2. Capital structure of the applicant undertaking: The authorised and paid-up capital of the Company as on 31-12-1981 is Rs 138,937,500 divided into 1,389,375 equity shares of Rs 100/- each.

3. Details of the proposed substantial expansion: (a) *Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* The proposed expansion envisages manufacture of the following pesticides: 1. Diazinon Technical. 2. Formulations based on Diazinon Technical. (b) *In the case of substantial expansion of existing activities:* (i) Name of goods: The Company is currently engaged in the manufacture of pesticides in its plant at Goa. It is now proposed to undertake the manufacture of the pesticides mentioned above viz. 1. Diazinon Technical. 2. Formulations based on Diazinon Technical. (ii) Capacity before expansion: Nil. (iii) Expansion proposed: Diazinon Technical: 500 tonnes per annum; Formulations based on Diazinon Technical: 7250 tonnes per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the project, the scheme and sources of finance: The estimated capital investment of Rs 25.0 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public.

2. Any person interested in the

matter, may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

K. M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited

Bombay, 28-6-1982

NOTICE

It is hereby notified for the information of the public that CIBA-GEIGY of India Limited, 14, J. Tata Road, Bombay-400 020 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under:

1. Name(s) of person(s)/body corporate owning the undertaking: CIBA-GEIGY of India Limited.

2. Capital structure of the applicant undertaking: The authorised and paid-up capital of the Company as on 31-12-1981 is Rs 138,937,500 divided into 1,389,375 equity shares of Rs 100/- each.

3. Details of the proposed substantial expansion: (a) *Name of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* Manufacture of Synthetic Tanning Agents & Fat Liquors. (b) *In the case of substantial expansion of existing activities:* (i) Name of goods: The Company is currently manufacturing pesticides at its Goa plant where it is now proposed to undertake the manufacture of Synthetic Tanning Agents & Fat Liquors. (ii) Capacity before expansion: Nil. (iii) Expansion proposed: Synthetic Tanning Agents & Fat Liquors — 1500 tonnes per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the project, the scheme and sources of finance: The estimated capital investment of Rs 24.0 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public.

2. Any person interested in the matter, may make a representation

to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

K. M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited
Bombay, 30-6-1982.

NOTICE

It is hereby notified for the information of the public that CIBA-GEIGY of India Limited, 14, J. Tata Road, Bombay-400 020 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under:

1. Name(s) of person(s)/body corporate owning the undertaking: CIBA-GEIGY of India Limited.

2. Capital structure of the applicant undertaking: The authorised and paid-up capital of the Company as on 31-12-1981 is Rs 138,937,500 divided into 1,389,375 equity shares of Rs 100/- each.

3. Details of the proposed substantial expansion: (a) *Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* Manufacture of Trasacor bulk drug and Trasacor based formulations. (b) *In the case of substantial expansion of existing activities:* (1) Name of goods: The Company is currently manufacturing pesticides at its Goa plant where it is now proposed to undertake the manufacture of Trasacor bulk drug and Trasacor based formulations. (ii) Capacity before expansion: Nil. (iii) Expansion proposed: Trasacor bulk drug — 8 tonnes per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the project, the scheme and sources of finance: The estimated capital investment of Rs 5.0 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public.

Any person interested in the matter, may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

K. M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited
Bombay 28-6-1982

NOTICE

It is hereby notified for the information of the public that CIBA-GEIGY of India Limited, 14, J. Tata Road, Bombay-400 020 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under:

Name(s) of person(s)/body corporate owning the undertaking: CIBA-GEIGY of India Limited.

Capital structure of the applicant undertaking: The authorised and paid-up capital of the Company as on 31-12-1981 is Rs 138,937,500 divided into 1,389,375 equity shares of Rs 100/- each.

Details of the proposed substantial expansion: (a) *Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* Manufacture of Optical Brightening Agents for Synthetic Fibres. (b) *In the case of substantial expansion of existing activities:* (i) Name of goods: The company is currently manufacturing pesticides at its Goa plant where it is now proposed to undertake the manufacture of Optical Brightening Agents for Synthetic Fibres. (ii) Capacity before expansion: Nil (iii) Expansion proposed: 300 tonnes of Optical Brightening Agents for synthetic fibres per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the project, the scheme and sources of finance: The estimated capital investment of Rs 7.0 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public.

Any person interested in the matter, may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of

publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein

K. M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited
Bombay 28-6-1982

NOTICE

It is hereby notified for the information of the public that CIBA-GEIGY of India Limited, 14, J. Tata Road, Bombay-400 020 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under:

1. Name(s) of person(s)/body corporate owning the undertaking: CIBA-GEIGY of India Limited.

2. Capital structure of the applicant undertaking: The authorised and paid-up capital of the Company as on 31-12-1981 is Rs 138,937,500 divided into 1,389,375 equity shares of Rs 100/- each.

3. Details of the proposed substantial expansion: (a) *Names of the new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* Manufacture of Synthetic Detergents. (b) *In the case of substantial expansion of existing activities:* (i) Names of goods: The Company is currently manufacturing pesticides at its Goa plant where it is now proposed to undertake the manufacture of Synthetic Detergents. (ii) Capacity before expansion: Nil (iii) Expansion proposed: 10,000 tonnes of Synthetic Detergents per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the project, the scheme and sources of finance: The estimated capital investment of Rs 43.5 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public.

2. Any person interested in the matter, may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

K.M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited
Bombay 28-6-1982

NOTICE

It is hereby notified for the information of the public that CIBA-GEIGY of India Limited, 14, J. Tata Road, Bombay-400 020 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under

1. Name(s) of person(s)/body corporate owning the undertaking: CIBA-GEIGY of India Limited.

2. Capital structure of the applicant undertaking: The authorised and paid-up capital of the Company as on 31-12-1981 is Rs 138,937,500 divided into 1,389,375 equity shares of Rs 100/- each.

3. Details of the proposed substantial expansion: (a) *Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* Manufacture of the bulk drugs Voltaren, Tegretol, Tanderil and formulations thereof and Locacorten Cream and Slow K Tablets. (b) *In the case of substantial expansion of existing activities:* (i) Name of goods: The Company is currently manufacturing pesticides at its Goa plant where it is now proposed to undertake the manufacture of the bulk drugs Voltaren, Tegretol, Tanderil and formulations thereof and Locacorten Cream and Slow K Tablets. (ii) Capacity before expansion: Nil (iii) Expansion proposed: Voltaren Bulk Drug — 1500 kgs. per annum; Formulations of Voltaren bulk drug — Equivalent to 1500 kgs. of Voltaren bulk drug per annum; Tegretol Bulk Drug — 12,000 kgs. per annum; Formulations of Tegretol bulk drug — Equivalent to 12,000 kgs of Tegretol bulk drug per annum; Tanderil Bulk Drug — 4000 kgs. per annum; Formulations of Tanderil bulk drug — Equivalent to 4000 kgs. of Tanderil bulk drug per annum; Locacorten Cream — 2.0 mio. tubes per annum; Slow K Tablets — 54.0 mio. tablets per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the project, the scheme and sources of finance: The estimated capital investment of Rs 40.0 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public.

2. Any person interested in the matter, may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi,

within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein

K. M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited
Bombay 30-6-1982

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3. Details of the proposed substantial expansion: (a) *Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered:* Manufacture of Polyurethane Resins. (b) *In the case of substantial expansion of existing activities:* (i) Name of goods: The Company is currently manufacturing pesticides at its Goa plant where it is now proposed to undertake the manufacture of Polyurethane Resins. (ii) Capacity before expansion: Nil (iii) Expansion proposed: Polyurethane Resins — 500 tonnes per annum. (iv) Location of the project for substantial expansion: At the Company's existing plant site at Santa Monica, Corlim, Ilhas, Goa. (v) Brief outline of the cost of the new project, the scheme and sources of finance: The estimated capital investment of Rs 6.5 mio. will be financed partly from the retained earnings of the Company and partly by raising fresh capital from the public

2. Any person interested in the matter, may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein

K. M. KAEUMLLEN
Managing Director
CIBA-GEIGY of India Limited
Bombay 30-6-1982

INDIAN ECONOMY : BASIC INDICATORS

By COMMERCE RESEARCH BUREAU

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	During the week ended				Week	Percentage variation over		
	June 19 1982	June 12, 1982	May 22, 1982	June 20 1981		Month	Year	Two years
Manufactured products	271.1	270.9	267.0	277.4	0.1	1.5	-2.3	8.8
Primary articles	270.5	268.2	260.9	260.2	0.9	3.7	4.0	18.5
Fuel, power, lubricants, etc. .. .	446.5	446.5	437.2	401.0	—	2.1	11.3	26.6
All commodities	285.7	284.6	278.9	280.7	0.4	2.4	1.8	14.6

Money and Banking

	During the week ended				Week	Percentage variation over		
	June 25, 1982	June 18, 1982	May 28, 1982	June 26, 1981		Month	Year	Two years
Money supply (M3) (b)	65,270(a)	64,776	64,370	58,327(a)	0.8	1.4	11.9	33.7
Bank credit	29,988	29,865	29,982	26,551	0.4	—	12.9	35.9
Aggregate deposits	45,425	44,726	44,685	40,549	1.6	1.7	12.0	36.1
Foreign exchange reserves (a) .. .	3,881	3,870	3,985	4,808	0.3	-2.6	-19.3	-27.0

MONTHLY INDICATORS

	Unit	Latest month		Amount/ Index	Previous month	Percentage variation over previous month	Recent trend (per cent)(c)
Industrial production (crude index) ..	1970=100	May	1982	163.7(a)	165.0(a)	— 0.8	12.5
Electricity generation (public utilities)	Million kwh	May	1982	10,603	10,652	— 0.5	5.1
Exports	Rs crores	March	1982	506	502	0.8	—
Imports	Rs crores	March	1982	919	1,131	— 18.7	—
Trade balance	Rs crores	March	1982	— 413	— 629	—	—
Foreign exchange reserves (a)	Rs crores	May	1982	3,985	4,149	— 4.0	—19.2
Wholesale price index	1970-71=100	May	1982	277.5	276.2	0.5	—
Consumer price index for industrial workers	1960=100	April	1982	459	457	0.4	7.5
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	November	1981	176.3	174.2	1.2	9.6

ANNUAL INDICATORS

	Unit	1981-82 (CRB estimates)	1980-81	1975-76	1950-51	Percentage variation in 1980-81 over 1979-80	Annual rate of growth (%) between 1975-76 and 1980-81
Population	Crores	69.1	68.4(d)	60.4	35.8	3.2	2.2(e)
Gross National Product (at market prices)	Rs crores	1,38,000	1,25,744	73,907	9,503	17.5	11.2
Per capita GNP (at market prices)	Rupees	1,997	1,855	1,224	265	14.9	8.7
Real national income (Index)	1970-71=100	144.1	137.9	117.1	48.9	7.7	3.3
Real per capita income (Index)	1970-71=100	112.6	109.9	104.9	73.6	5.3	0.9
Agricultural production (Index triennium ending)	1969-70=100	139.3	135.2	124.8	58.5	15.4	1.6
Foodgrains production	Million tonnes	135.0	130.0	121.0	55.0	18.2	1.4
Industrial production (Index)	1970=100	166.3	154.0	119.7(f)	26.5(f)	4.0	5.2
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.0	30.0	18.6	0.18	0.7	10.0
Electricity generation (public utilities) ..	Billion kwh	122.9	111.6	79.2	5.3	6.7	7.1
Exports	Rs crores	..	6,709	4,043	601	3.9	10.6
Imports	Rs crores	..	12,484	5,265	650	38.4	18.6
Trade balance	Rs crores	..	— 5,725	— 1,222	— 49	—	—
Foreign exchange reserves*	Rs crores	3,797	5,316	1,702	911	— 6.8	25.6
Money supply (M3) (b)*	Rs crores	62,281	55,445	22,286	2,336	18.5	20.0
Bank credit*	Rs crores	29,599	25,371	10,877	547	17.8	18.5
Aggregate deposits*	Rs crores	43,750	37,988	14,155	881	19.6	21.8
Wholesale price index (average)	1970-71=100	280.3	257.2	173.0	47.5	18.2	9.0
Consumer price index for industrial workers*	1960=100	..	420	286	..	12.6	8.0
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	..	162	93	..	..	..

Notes:

(a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year. (d) As on March 1, 1981 as revealed by 1981 Census. (e) Between 1971 Census and 1981 Census (f) Figures relate to 1975 and 1950 respectively.

* Financial year-end data

** Calendar year-end data

(—) = Nil or negligible

(.) = Not available

LETTERS

BOMBAY TELEPHONES

— Mr Subhash Chandra Sarker's column, 'As I see it' in *Commerce*, June 19, 1982 'Rising inefficiency in telephone service' was very much timely and worth reading.

Though Mr Allwyn Fernandes's report on the deteriorating telephone service in Bombay in the *Times of India* did not get the expected response from the authorities, it was for sure an opener. Separating the telephone department from post and telegraph department is surely a right step to step up the working efficiency of the telephone system. And as Mr Fernandes writes, there should be some yardstick (qualification/experience) by which hands like linesmen are taken for the department and these hands should be thoroughly trained before being absorbed into service.

The Sarin Committee, set up for the betterment of the telephone department, made some 437 sensible recommendations, out of which as many as 185 were accepted, which include periodical check-up of telephones by the concerned inspector of the circle, which is to be entered in a card left with each subscriber. The debut of INSAT with its 7,000 link line capacity is sure to give a shot in the arm of our telephone system.

Inflated bills can be eliminated by fixing the Automatic Meter Observation Equipment (AMOE) which makes available a bill like the number of calls a subscriber makes and the duration of the subscriber trunk dialling (STD) or trunk calls, at the request of the subscriber.

How far our telephone system has deteriorated is anybody's guess. But can you believe that corruption in the telephone department (as in many other government departments) has come to a shameful state with many in the Bombay telephone department's staff remaining on the payrolls of Bombay's import-export tycoons to get them the always-busy international lines?

Nirmala Menon
BOMBAY

TEXTILE INDUSTRY IN M.P.

SIR — In *Commerce* dated June 5, 1982, an article of your Commerce Research Bureau has been published on page 972 under the heading "Higher Excise On Power — Power Situation".

While dealing with the position of power cut in Madhya Pradesh, it has been stated that interruptions in power supply and load-sheddings continued in the State.

In this regard, the correct position is that, in addition to load-sheddings and interruptions, which have been unusual and menacing, there has been in vogue a power cut since November 1975 on all H.T. consumers. Presently the same as per State Government notification No. 767/1121/13/82 dated February 24, 1982, ranges up to 50 per cent in maximum demand; the textile industry attracting 40 per cent cut in load. This, by any standard, would appear to be too much.

C. Bhandari
Secretary
Madhya Pradesh Textile Mills Association,
BOMBAY

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All enquiries may be addressed to

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THE STAR ROOF

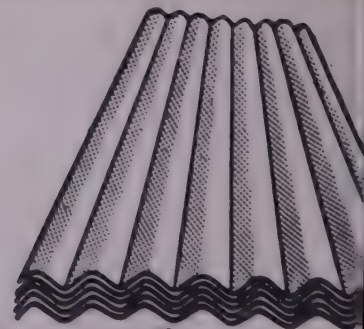
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THE WEEK

The employees of Star Industrial and Textile Enterprises Ltd, a leading supplier of textile machinery, have averted a possible lay-off of two days per week by agreeing to a voluntary cut in salary ranging from Rs 150 to Rs 300. The agreement signed with the management provides for reimbursement of the amount deducted to the workers when finances of the company improve. The credit squeeze and prolonged strike in textile mills have resulted in the accumulation of the stock of machinery worth Rs 4 crores with the company.

The EEC has decided to enlarge GSP benefits for Indian hand-knotted carpets, tobacco and marine products, particularly shrimps.

The Union Cabinet has given its final approval to the French company Cit-Alcatel's proposal to set up a telephone exchange equipment factory in Palghat.

The Ocean Drilling and Exploration Company, USA, and Hispanoil, Spain, have been chosen as partners by Chevron for oil exploration in Saurashtra's offshore block II region.

British Mining Consultants have been given a consultancy contract for the development of the coal mines to feed the British-assisted Rihand super thermal station.

The Engineering Export Promotion Council has fixed an export target of Rs 1,400 crores for 1982-83.

The public sector steel plants will invest Rs 500 crores in captive power plants, which will meet 8 per cent of their power requirements.

Eighty-five joint ventures set up by 75 Indian companies in 15 countries repatriated earnings of Rs 11.86 crores up to the end of December 1981.

The Union Cabinet has decided to continue the existing statutory minimum price of Rs 175 a quintal for raw jute for the 1982-83 season.

The World Bank is likely to finance the \$ 500 million power transmission programme to be jointly undertaken by the National Thermal Power Corporation and the states of Gujarat and Maharashtra.

The Indian Institute of Industrial Engineering will hold an international productivity congress at Bombay in January 1983.

The Reserve Bank has set up an informal committee of bankers to consider the interest rate structure of banks and suggest an acceptable framework.

Wholesale price index

At 289.8, the latest available wholesale price index for all commodities for the week ended July 3, 1982 showed a rise of 0.9 per cent over the week and 2.5 per cent over the year.

Money easy

Conditions in the Bombay short-term money market were easy as of Monday (July 19, 1982). In the inter-bank call money section, both notified and commercial funds were renewed at 4.5 per cent. Fresh money was also transacted at 4.5 per cent. The market closed at 4.5 per cent.

PEOPLE



Kapur

Mr M.L. Capoor of Dunlop India Ltd has been elected president of the All India Rubber Industries Association. Mr O.P. Jalan of Deco Enterprises Private Ltd and Mr W.S. Rajadhyal of Vikrant Tyres Ltd were elected vice-presidents.

Mr V.K. Kapur has been appointed managing director (accounts and finance) by Bombay Tyres International Ltd.

Mr S.K. Guha Thakurta, who has been appointed general manager at Gannon Dunkerley and Co Ltd, is a civil engineer and Fellow of the Institute of Industrial Managers, UK and the British Institute of Management, UK. He joined the company in 1953.



Guha Thakurta

Mr John Gayford has been appointed managing director for British Airways in central and southern India, for British Airways.

Mr N. H. Pai has been appointed general manager at Gannon Dunkerley and Co Ltd. A civil engineer, Mr Pai joined the company in 1956 and has studied closely the construction industry in advanced countries.



Pai

Mr P.R. Krishnaswamy has taken over as special director (finance) of Tube Investments of India Ltd and of its subsidiaries. Prior to joining TII, he was in Nairobi as financial controller of a multi-million dollar sugar project funded by the World Bank and others.



Krishnaswamy

Major T.L. Vaikuntam has been elected president and Mr Sheikh Abbasbhai Rashid vice-president of the Madras Shareholders Association.

Mr R.D. Shah was elected recently chairman of the A.P. State Board of the All India Manufacturers Association. He is also the president of the Federation of A.P. Chamber of Commerce and Industry.



Shah

Decline and fall of Bombay Stock Exchange

HAT the Bombay Stock Exchange was gripped by a serious crisis was evident for many months inasmuch as the authorities of the stock exchange were forced to suspend trading on the exchange on repeated occasions. What was not well-known was that the authorities of the stock exchange had taken such little notice of the warning tremors symbolised by such suspension of trading and in fact had done so little to arrest the deterioration in the working of the exchange. This failure on the part of the authorities of the exchange to take remedial measures came to the fore when the governing board of the stock exchange had to declare last week one of its own members defaulter. In all three brokers, including Mr Sumatilal Malal, member of the governing board of the Bombay Stock Exchange, have so far been declared defaulters. The amount of default has not been given out by the stock exchange but is estimated to run to crores of rupees — to as high as Rs 4 crores, according to one estimate. What punishment, apart from losing the right to conduct business on the stock exchange, the declaration of a defaulter implies for a defaulter is not very clear. It is not certain that the stock exchange would be able to recover the amount in arrears if any of the defaulting stockbrokers declines to pay. One legal reading is that the board will have to enter into litigation to recover the money. All this creates an uncertainty in which the unwary small investors are likely to be the worst sufferers.

The recurrent crisis of the Bombay Stock Exchange can be traced to just one cause — possibility afforded by the governing board of the exchange of trading in shares for the sellers without having any share and for the purchasers without paying any money. This is not an exaggeration. The recent crisis over Reliance shares was caused exactly because the sellers "sold" shares which they did not have. Somehow that could be covered up. The latest crisis also has happened because the buyer had no money to pay for the shares which he had "bought". This is an unpardonable offence but nobody seems to have bothered about it. No doubt this privilege of phoney trading is confined to the sharebrokers registered with the stock exchange. But then, as the emergence of three brokers as defaulters so glaringly indicates, this affords no protection to genuine traders in stocks and shares, to protect whose interests the stock exchange has been set up. On the contrary, this privilege confers the opportunity on a few, privileged, to manipulate trading to their own interest. This possibility would disappear if the so-called 'A' group scrips and all the other scrips listed with the exchange are put in the same group, subject to the same conditions of trading. Having done away with forward trading in shares, there was little

justification to maintain the discrimination between shares of different companies, according a more privileged position to the trading in the shares of some companies on the stock exchange than those of others. If forward trading cannot be permitted such brazen-faced tomfoolery as the maintenance of a separate list of shares for privileged treatment by the stock exchange is still less justified. Indeed, what has been happening on the Bombay Stock Exchange is forward trading with all its evils reinforced by authoritative support. It is the sign of the times that having failed to tackle the problem the chairman of the exchange should have commended the opening of a wider gate for manipulation by asking for the reintroduction of forward trading!

The attitude of the Government of India, which is responsible for supervising the working of the stock exchanges in the country, is the most difficult to understand. Despite the fact that the Bombay Stock Exchange authorities have been found to have failed on occasion after occasion to arrest the rot that has affected the exchange, the Government has remained peculiarly inactive. Some officials from New Delhi had reportedly come to Bombay to talk to the stock exchange authorities. What they had talked is not known. (By the way, why is there so much of secretiveness over stock exchange affairs? No state secret is involved, to be sure. Day after day trading on the Bombay Stock Exchange is suspended without even an official word being given out by the exchange authorities by way of explanation. Even when the situation is considered serious enough to merit deputing an officer from New Delhi to come to Bombay to smoothen things over, no official word is said about it.) The fact that despite the visit and talks by the Central Government officers the downward tendency of the Bombay Stock Exchange persists, it shows the utter futility of these visits and talks. Obviously, something more has to be done. The first step towards this should be to dissolve the present governing board of the Bombay Stock Exchange and appoint a new board consisting mostly of persons directly unconnected with share broking and the big private sector companies, whose shares provide the focal point for speculation. The want of legal authority can never be an excuse with the Government of India, which finds no difficulty in dissolving even elected state governments. The Government of India possesses more than ample authority to deal with the recalcitrant stock exchanges. It is urgently necessary to bring in the nominees of the financial institutions, banks and representatives of the individual investors on the governing board of the stock exchange. The Government must wake up to its responsibility.

Meeting the challenge of edible oils

THE edible oils situation in the country is in the most unsatisfactory state. Oil is an essential item of consumption for the maintenance of the health of the people. Yet the country is utterly short of adequate supplies even at a miserably low per capita consumption which is just 11 gm per day as against the recommended level of over 30 gm per day. The country has to import on an average about one million tonnes of edible oils every year to meet the gap between demand and supply (3.6 million tonnes and 2.6 million tonnes respectively). The drain on the country's foreign exchange resources, as a result, is of the order of Rs 650 crores (for the oil year 1981-82). This amount is about ten per cent of the cost of the total annual imports in the country. Dr A.S. Ganguly, chairman, Hindustan Lever Ltd., in his speech to the annual general meeting of the company held on June 25, has drawn attention to this problem of vital significance and has rendered a timely service.

Apart from the drain on the foreign exchange resources of the country involved in the large-scale imports of oils, it is evidently unwise to leave the country exposed to the vagaries of the world market in the matter of obtaining supplies of these articles of essential consumption. Indeed the global situation with regard to the availability of oils is far from being comfortable. The Sixth Five Year Plan provided for a rise of about two million tonnes in the production of oilseeds by the end of the Plan period. Following the enunciation of the new 20-point programme by the Prime Minister, Mrs Indira Gandhi, including edible oils as a major item in it, the decision was taken to aim at achieving the Plan target of 13 million tonnes of oilseeds by the end of the current year (1982-83). A special group on oilseeds, set up in the Union Agriculture Ministry, has taken up the preparation of a blueprint for the national project on oilseeds. The new strategy involves expansion of the production of summer groundnut in irrigated areas, inter-cropping, double-cropping and relay-cropping of oilseeds, and improvement of the productivity of oilseeds in areas where these are already being cultivated.

Oilseeds are grown at low levels of management and primarily in unirrigated areas. Less than ten per cent of the area under oilseeds is irrigated. Thus the vagaries of weather leave a heavy toll on the production of oilseeds. Poor plant protection, insufficient supply of cultural energy through nutrients and unsatisfactory post-harvest technology combine to keep the yield low and unstable. The Sixth Five Year Plan has provided for Rs 65 crores for special groundnut and soyabean projects as well as for the on-going Centrally-sponsored schemes. The special groundnut project with an outlay of Rs 35 crores aims at raising the production of groundnut in Gujarat from 18 lakh tonnes in 1979-80 to 27 lakh tonnes in 1983-84. Considering the fact that during 1981-82 Gujarat achieved the production of 22.32 lakh tonnes of groundnut, the achievement of the target is well within possibility. The soyabean project with an outlay of Rs 15 crores envisages extension of area

under soyabean in Madhya Pradesh from 4.5 lakh hectares with a production of 3.5 lakh tonnes in 1980-81 to 18 lakh hectares with a production of 14.4 lakh tonnes in 1984-85. The remaining Rs 15 crores are provided for on-going schemes.

There has to be a multi-pronged drive to boost the production of edible oilseeds, for which there are three principal sources: (a) perennial oilseeds plants like coconut and palm, (b) annual oilseeds like groundnut, rape, mustard, safflower, sunflower and soyabean and (c) oil obtained from non-traditional sources such as rice bran, maize germ, cotton seed and mango kernel through technological process. Now that a sizeable quantity of palm oil is being imported which is finding wide consumption that ought to provide a fillip to the expansion of the cultivation of coconut and palm. Dr M.S. Swaminathan has drawn attention to the possibility of the successful introduction of the cultivation of oil palm in India, particularly in Kerala which offers an almost ideal ground for growing oil palms. As Dr Ganguly has pointed out, other areas which can be considered for the cultivation of oil palm are the west coast of Karnataka, North and South Kanara districts and the Andaman and Nicobar Islands which "offer excellent and practically unlimited opportunities".

Dr Ganguly has examined in some detail the possibility of getting edible oils from rice bran. Production of rice bran oil in the country rose from 500 tonnes in 1960-61 to about 150,000 tonnes during 1980-81. Only a small quantity of total oil — just 5,000 tonnes in 1980-81 — is of edible grade. How to derive a much greater proportion of edible grade oil from total rice bran oil is a matter that calls for urgent attention. Incidentally the food habits also affect the type of supplies. Dr Ganguly notes that parboiled paddy gives a higher yield of rice and better quality in terms of oil content as compared to raw paddy. However, in practice half the consumption is of raw rice.

The government has pursued four Centrally-sponsored schemes: (a) intensive oilseeds development programme, (b) extension of oilseeds to new irrigated areas; (c) development of soyabean and (d) development of sunflower. An evaluation of the intensive oilseeds development programme done by the programme evaluation organisation of the Planning Commission disclosed that the current technology fell short of the requirement "specially in respect of high yielding varieties of seeds which are to be cultivated in drought conditions". The improved varieties of seeds supplied suffered from impurities, poor rate of germination and low yields. In many of the selected districts a large proportion of the growers were found to be without knowledge of the extension effort on the part of the government. Moreover credit was found to be a major constraint on the growers. While a third of the groundnut growers could get some credit, only four per cent of the growers of mustard and rapeseed enjoyed that advantage. Obviously a much closer supervision of the implementation of the programme at the field level is called for.

EDITOR'S NOTEBOOK

Vadilal Dagli

Real hypocrisy

THE West Bengal Government's decision to impose a 40 per cent cut in the current year's expenditure is the most stunning economic news of recent months. All those who believe that government expenditure ought to be reduced and that there should be a cross-the-board cut would be delighted that the West Bengal Government has taken the first step in this direction. Government expenditure is a malignant disease of our economy. So any step that reduces the government consumption of national income must be welcomed. In this case the matter is not simple. It might become a major cause of a serious confrontation between the Centre and the states and generate a heated debate about Centre-state financial relations. Mr Jyoti Basu, who also holds the finance portfolio, said that the 40 per cent cut was imposed because of the Centre's decision to disallow overdrafts from July. He also said that circulars were issued to various departments to limit their expenditure to 60 per cent of the allotted amount. The finance department's approval will be needed for incurring any expenditure beyond the limit of 60 per cent.

The question that might arise is this: If the state governments are to impose real discipline on themselves, what about the Centre? If overdrafts are to be banned, what about deficit financing? Overdraft is another name of deficit financing. If the Centre incurs year after year huge budgetary deficits, what moral right has it to ask the states not to have overdrafts? The former Chief Minister of Kerala, E. M. S. Namboodiripad, once put the problem dramatically when he said that the Central Government had got the Sik Security Press, the states had no such facility to print currency notes. The Central Government expenditure increased from Rs 370 crores in 1950-51 to more than Rs 15,000 crores in 1981-82. While there is no attempt to curb Central government expenditure, New Delhi tries to monopolise all flexible sources of revenue gathering and because it controls the Reserve Bank, it also imposes a periodic ban on overdrafts. As far as the policy is concerned, it is a sound fiscal policy, but what is good for the states

should also be good for the Centre whose budgetary deficits are a main cause of rise in prices, which affect the expenditure of state governments, particularly in the matter of dearness allowances to its staff. The Central Government should, therefore, announce at least a 10 per cent across-the-board cut in its expenditure and take other steps so that at the end of the current financial year the budget is balanced. Unless this is done, it would be rightly accused by the state governments of indulging in economic hypocrisy.

Undiplomatic haste

IT was shocking that the Government of India should have expelled the Israeli Consul, Mr Yosef Hasseen, and asked him to leave the country within 48 hours. The Government's decision followed some admittedly strong statements that he had made about the Government of India. The Government should have certainly warned Mr Hasseen. My distress is all the more because Mr Hasseen was anyway to leave this country to take up another assignment. New Delhi knew about it but still it decided to expel him only to impress the ungrateful Arabs who are not helping even their own brethren in Lebanon. Some time ago an ambassador from an Arab country had made offensive remarks about the condition of Muslims in India. We wisely did not do anything about this. The same criterion should have been maintained. As a matter of fact I was invited to a farewell party at the Consulate of Israel on July 17. This, of course, was cancelled. I received a letter from the Consul General and his wife which ends with these lines: "We wish very much that our roads will cross again and you will be a very 'persona grata' any time at our place." Incidentally, this letter was addressed to a person who was certainly not an uncritical admirer of Israel's treatment of the Arabs.

Pre-censorship for fanatics?

THE Maharashtra Government, to put it mildly, has over-reacted in ordering the seizure of the July 17 issue of a Marathi weekly *Shree* that carried an article on Vedic religion in Gulf countries which reportedly sought to make out a case that historically the Vedic religion had a base in the Gulf countries. The police seized 5,000 copies of the

magazine from the press and sent out frantic wireless messages all over the State for intercepting 450 parcels of the issue which had left the press. I have not read the article myself, but as a lover of the freedom of expression, I must condemn the action of the Maharashtra Government. A reader of *Indian Express*, who apparently has gone through the article, has claimed in a letter to the paper that the article was based on historical evidence and he has rightly posed the question: Should we shun historical facts and should historians overlook those facts? I cannot understand how such an article could have incited communal feelings for fear of which the Maharashtra Government has reportedly seized the issue. Is our communal harmony so fragile? Then something is basically wrong with our society.

Who cares for this Draupadi?

IT is unusual and more than out of date to speak about a Desk Diary for 1982 this week and in this column. However, an exception has to be made once in a while and I make it for a diary brought out by "Reaching Out" (7, Manohar Mahal, New Moghul Lane, Mahim, Bombay 400 016, Tel 45 71 03), an organisation claiming to be a feminist group. The theme of the Diary is the women who work in the 'bidi' sweatshops of Nipani. It depicts the horrifying conditions of work of these women. It also supports their struggle to improve their conditions of work. But it is a struggle which consists of only occasional flickers of defiance and desperation. One gets angry at the hopelessness of it all. At the same time, one does not have to be a feminist to be touched by the humanity of the cause sponsored by 'Reaching Out'.

It is a human story and also a humane cause. The Diary tells, among other things, about Draupadi Bai Patil, a bidi worker.

"I work till one or two in the morning. When my eyes close I slap my own cheeks and say 'Don't sleep. Do you want to eat, then don't sleep', and continue to work," Draupadibai said and mimicked her own act of sleeping and slapping. And she laughed. "Take, take my photo", she said and smiled into the camera.

Suddenly, suffering and fortitude take on a human face. Maybe there is room for hope.

Sharp reaction to US blocking of Soviet pipeline project

From STEPHEN HUGH-JONES

B RITAIN has reacted more sharply than any other European country to American attempts to block the planned gas pipeline from the Soviet Union to western Europe.

The transatlantic row, which involves all major west European countries, hinges on the use of American technology in the pipeline. The Reagan administration has banned US subsidiaries abroad from selling goods for the pipeline. Even non-American-owned companies using technology licensed from America are expected to comply.

Britain is not, in fact, the main victim of the US sanctions. The real sufferers will be those continental countries which should, by 1984, be getting the first of a planned 25 billion cubic metres a year of Soviet natural gas. And companies such as Mannesmann, of West Germany, or Creusot-Loire, of France, which have huge contracts to help build the line.

British involvement in the £ 4 billion project is relatively small: perhaps £ 200 million, of which the lion's share is an order for turbines from Clydeside engineers John Brown Engineering.

But Britain is unusually sensitive to American attempts to extend US law abroad.

The issue goes back some 20 years, when Ford's UK plants were prevented from supplying trucks to Cuba. But it has arisen acutely again three times over the past five years or so.

The first of these involved a world-wide uranium cartel, whose existence, according to the US company Westinghouse, had prevented it from fulfilling certain supply contracts to US customers of its nuclear power plants.

The British company Rio Tinto-Zinc was alleged to have been concerned in

the cartel, and its officials were summoned to give evidence to the US courts trying the civil dispute between Westinghouse and its customers.

The result was an astonishing spectacle: a US judge taking evidence, at the US embassy in London, from British executives of a British company who pleaded the famous 'Fifth Amendment' against self-incrimination (since RTZ might have found itself facing charges under US anti-trust law).

RTZ appealed to British courts against being forced to give evidence, and eventually won, in the House of Lords.

British companies would like to be protected against American meddling with their contracts. But they also want to remain on good terms with US firms from whom they have licensed technology.

The next row was when America's anti-trust authorities tried to force British shipping lines involved in the transatlantic trades to produce documents relating to the North Atlantic 'conference' — the shipping industry's cartel system whereby it tries to maintain freight charges on specific routes.

Here the British government became vigorously involved. The result was a new law, the Protection of Trading Interests Act, passed in 1980, which gave the government power to order British companies not to comply with this sort of instruction from foreign courts or governments.

A third and major shock which occurred at about the same time was the US freezing of Iranian assets, which affected not only money held by US banks in

America but by their branches in London. Britain did not object deeply to the ban, whose reasons — the holding of US embassy hostages in Teheran — were understood. But they did object to the principle.

So today we have another surprising spectacle. Britain, fresh from enjoying US support on trade sanctions against Argentina, has now taken the first step to invoke the Protection of Trading Interests Act to block the US sanctions against Russia.

The government has made an order declaring the US ban "damaging" to Britain's trade interests. It could go on to order British companies to ignore

This is a very double-edged weapon as far as British companies are concerned. They'd like to be protected against American meddling with their contracts. But they also want to remain on good terms with US firms from which they have licensed technology, and indeed with the US government itself, which could retaliate, directly or indirectly, against them.

On the other side, US companies too are anxious: they want to be able to sell their technology.

The dispute comes on top of others that separate Britain from American allies: American threats to impose countervailing duties on imports of European steel, and the high level of US interest rates, which European governments, including Mrs Thatcher's, which in its day has imposed almost high levels in Britain, see as endangering the world economy.

Britain's trade minister, Peter Rees, has just returned from Washington after two days of talks on steel and the pipeline. He came back hopeful — but still far from agreement.

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SPECIAL REPORTS

Pretentious credit policy

By Our Banking Correspondent

BOMBAY

RESERVE Bank of India (RBI) has made no changes in the credit policy. Although RBI has admitted that bank credit to the commercial sector has grown at a much slower rate than in the past, it has taken no measures to relax the credit restraints. Its advice to the bankers: allow credit expansion on the same scale as in the corresponding period of the previous year.

Thus, the borrowers would get no further reliefs from the tensions of credit restraints. Although all the bankers who went to New Delhi a few weeks ago told the Finance Minister that they had no shortage of resources now, none of them was willing to sanction new limits. Drawings against the existing limits are also allowed reluctantly.

Although RBI and Government are prompt in pronouncing at every forum that all genuine production needs of industry would be fully met, nobody really means what these terms actually mean and none really means business. Thus, the simple definitions are that those who get credit somehow are all using it productively and those who do not get it, although they deserve it, are all seeking non-genuine non-productive credit!

Deposit growth has slowed down. Refinance facilities from RBI are severely controlled. The resources for lending to business on a commercial basis are largely re-empted by the priority sectors. The result is that there are simply no funds with the banks to meet the credit needs of their borrowers. Yet, banks and the authorities are pretending that they will fully meet the genuine credit needs of all the borrowers!

Some of the marginal concessions announced by the RBI are technical and procedural. They do not add to the available resources of banks. Standby finance that banks got to maintain their cash reserve position had to be retained for three days, if once taken. RBI has now allowed banks to borrow on a daily basis. Further, some evidence of the need

for such resources had to be produced in the past. Banks can now get them almost automatically, just for the asking.

Second, penalties for unintentional defaults in CRR (Cash Reserves Ratio) and SLR (Statutory Liquidity Ratio) have been softened. Instead of discontinuing interest from RBI to banks on their cash balances, RBI has now prescribed a graduated scale of penalties and interest.

The only relaxation that would somewhat help the borrowers is that Credit Authorisation Scheme (CAS) limit has now been raised from Rs 2 crores to Rs 3 crores. Thus, nearly one-third of the existing CAS borrowers would now heave a sigh of relief since delays would be cut substantially in their cases.

Bankers have not yet come to grips with the problem of stagnation in deposit growth, because they have not understood the problem correctly. Bankers still think

they are losing ground because their competitors pay higher rates. They are, therefore, unable to appreciate a very simple fact that deposits are not rising because they do not and cannot offer funds, services or expertise. And the customer who finds that banks have nothing to offer are seeking alternative avenues of obtaining and using their funds, investing their funds, making remittances and payment.

Incidentally, RBI Governor's meeting with bankers coincided with the 13th anniversary of bank nationalisation. RBI press notes, therefore, eulogised banks for having over 38,000 bank branches. But bankers are fully aware of their inadequacies in supervising, monitoring and controlling credit through so many branches. Despite long spells of credit restraints, banks have not yet started evolving systems for monitoring credit at so many decentralised centres.

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

		Rs per kg				Percentage variation on July 16, 1982 over		
	Quality	July 16, 1982	July 9, 1982	June 18, 1982	July 17 1981	a week ago	a month ago	a year ago
Rice	Average	4.75	4.75	4.25	3.50	—	11.8	35.7
Wheat	Average	4.00	3.80	3.60	3.50	5.3	11.1	14.3
Jowar	Average	3.00	3.00	3.00	2.20	—	—	36.4
Bajra	Average	3.00	3.00	3.00	2.20	—	—	36.4
Gram dal	Average	5.20	5.20	5.00	6.20	—	4.0	-16.1
Tur dal	Average	7.50	7.25	7.00	6.50	3.4	7.1	15.4
Potatoes	Average	2.50	2.50	2.50	2.00	—	—	25.0
Onions	Average	1.50	1.50	1.25	1.60	—	20.0	-6.3
Milk per litre	Buffalo	6.40	7.00	7.00	6.00	-8.6	-8.6	6.7
Tea	Average	26.00	26.00	24.00	23.00	—	8.3	13.0
Coffee	Average	20.00	20.00	19.00	17.50	—	5.3	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.55	1.55	1.55	1.55	—	—	—
Sugar	Average	5.50	5.50	5.60	6.50	—	-1.8	-15.4
Gur	Average	6.00	6.00	5.00	6.00	—	20.0	—
Groundnut oil	Average	15.00	15.00	14.50	15.00	—	3.4	—
Vanaspati	Average	17.00	17.00	18.00	16.00	—	-5.6	6.3
Toilet soap	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

Mr Zail Singh: Seventh President

NEW DELHI

THE victory of Mr Zail Singh, former Union Home Minister, in the presidential election held on July 12 was a foregone conclusion. Mr Singh bagged 754,113 worth of votes as against 282,685 polled by his rival, the opposition-sponsored candidate and former justice of the Supreme Court, Mr H.R. Khanna, showing a majority of 471,428 (See box). In terms of percentage, the ratio works out to 72.7 as against 27.3 in the case of Mr Khanna.

This is the second highest majority in the presidential elections ever, the previous best being when Dr Sarvapalli Radhakrishnan polled 546,726 votes more than his nearest rival in 1962. Of the 750 members of Parliament who exercised their franchise this time, Mr Singh had the support of 528 and Mr Khanna of 210 — 12 votes were declared invalid. The statewise position shows that Mr Singh had an edge over Mr Khanna in

all the states, except West Bengal and Tripura, the CPI-M ruled states which gave a clear mandate in favour of Mr Khanna. Cross-voting, though minimal, was reportedly in favour of Mr Singh and is said to have registered double figures only in Rajasthan, Uttar Pradesh and Bihar.

Mr Zail Singh, will be sworn in as the seventh President of the Republic of India on July 25. Mr Singh was born on May 5, 1916 in Sandhwan village of the erstwhile Faridkote state (now in Punjab). Popularly called Gianji by his friends, Mr Singh will be the first person from the Sikh community and from the backward class to adorn the President's office. He managed to study up to the matriculation standard before deciding that he would become a "granthi" i.e. a professional reader of the *Holy Granth*. But soon his political ambitions came to the fore when he challenged the Maharaja of Faridkote by founding the Congress party in that



Mr Zail Singh

state. In 1938 he was put into Faridkot jail for five years, and it was during this period that Mr Singh established his link with the late Mr Jawaharlal Nehru. From 1948 to 1952, Mr Singh served as the revenue minister and then as the agriculture minister in the erstwhile PEPSU state and soon after became president of the PEPSU Pradesh Congress committee. When PEPSU and Punjab states were merged, Mr Singh became a member of the Rajya Sabha.

In 1962 Mr Singh was elected to the Punjab legislative assembly and was included in the cabinet of the late Mr Pratapsingh Kairon. Since then he has been an influential figure in Punjab politics. He became the chief minister of that state in 1972. In 1977 his ministry was dismissed by the Janata government at the Centre. During this period, Mrs Indira Gandhi was out of power and in her struggle against the Janata government, Mr Singh gave her solid support. In 1980 when Mrs Gandhi returned to power, she appointed Mr Singh as the Union Home Minister following his victory in the parliamentary election from the Hoshiarpur constituency.

Soon after his election as President was announced, Mr Zail Singh declared that he would carry out his duties with utmost impartiality forgetting the bitterness of the contest. He said, "As President I will treat people of every region, sect, caste and creed equally as citizens of India." He promised to uphold the Constitution and maintain the high tradition built by his predecessors.

Presidential election: 1982
Statewise voting figures

State	Mr Zail Singh		Mr H.R. Khanna	
	Votes	Value	Votes	Value
Andhra Pradesh	255	37,740	31	4,588
Assam	—	—	—	—
Bihar	210	36,540	108	18,792
Gujarat	149	21,903	30	4,410
Haryana	54	6,048	35	3,920
Himachal Pradesh	35	1,785	32	1,632
Jammu and Kashmir	57	4,731	11	913
Karnataka	189	24,759	34	4,454
Kerala	76	11,552	61	9,272
Madhya Pradesh	251	32,630	66	8,580
Maharashtra	239	41,825	48	8,400
Manipur	50	900	10	180
Meghalaya	37	629	18	306
Nagaland	54	486	1	9
Orissa	130	19,370	15	2,235
Punjab	99	11,484	12	1,392
Rajasthan	154	19,866	40	5,160
Sikkim	24	168	7	49
Tamil Nadu	195	34,320	35	6,160
Tripura	3	78	51	1,326
U.P.	330	68,640	88	18,304
West Bengal	53	8,003	233	35,183
Parliament	528	370,656	210	147,420
Total	3,172	754,113	1,176	282,685
Invalid votes: States 46, Parliament 12.				

AHMEDABAD
GUJARAT ranks first in India, in the production of groundnut. More than 1 lakh hectares of land in Gujarat, which 24.6 per cent of the total acreage under groundnut crop in India, yield about 32.35 per cent of the country's total production of groundnut.

About one lakh hectares in Gujarat are under rapeseed and mustard crop, which annually yield a total of 50,000 tonnes. Further, another one lakh hectares estimated to be under sesamum produce about 35,000 tonnes of sesamum. Recently, the State has introduced soyabean cultivation.

tonnes. When compared to this, the production during 1981-82 is 4.22 lakh tonnes higher.

This achievement has been largely attributed to extensive measures taken for supplementary irrigation and plant protection measures during the kharif season and to vast areas — 1.80 lakh hectares — brought under summer groundnut cultivation. Of this, at least 40,000 hectares were non-traditional lands freshly brought under groundnut cultivation.

In the ensuing year 1982-83, the State has decided to lay emphasis on (1) better irrigation techniques during kharif, (2)

Further, the corporation has also taken up another programme for marketing certified and labelled packages of seeds in villages

The third major step being taken by the state authorities is to extend the benefits of plant protection umbrella to more people. All these years, plant protection measures were being taken in a scattered, piece-meal manner. For the first time now, a well-organised programme with the help of the Gujarat Co-operative Oilseeds Federation and district panchayats is being undertaken to cover four lakh hectares. As the results have been very encouraging, the programme will be expanded during the agricultural year 1982-83.

The fourth measure spelt out under the State's strategy to boost groundnut production is to bring more area under summer groundnut programme, especially if such areas have assured supply of irrigation. Under this programme, nearly 1.50 lakh hectares could be covered in the traditional groundnut areas of Saurashtra. It is common knowledge that the entire Saurashtra region is vulnerable to the vagaries of monsoon. At present, about 90 per cent of the traditional groundnut area is being irrigated from wells during summer, and as such whenever normal monsoon fails, the farmers cannot resort to lift irrigation for want of adequate water in wells.

Response to this measure from farmers in non-traditional groundnut areas has been very encouraging. Such non-traditional groundnut areas in Gujarat are known to be highly fertile and equipped with irrigation facilities even during summer. During the current summer (1982), more than 50,000 hectares have been brought under groundnut cultivation, thus raising the total summer groundnut acreage to 1.80 lakh hectares.

Rape and mustard are an important rabi crop in Gujarat. They require less irrigation than wheat crop, and as such, rape and mustard cultivation has been displacing wheat crop. Rape and mustard are mainly grown in north Gujarat, but have been spreading to other parts of Gujarat.

During 1981-82, production of rape and mustard recorded a five-fold increase, touching the figure of 2.50 lakh tonnes. The Gujarat Government has also decided to encourage cultivation of these oilseeds.

OILSEEDS REPLACING WHEAT CULTIVATION IN GUJARAT

From PADMA H. RAO

The steady development recorded in seeds production in Gujarat in recent years is remarkable. While the kharif groundnut in Gujarat, being largely dependent on the vagaries of rainfall, has been fluctuating, the summer groundnut crop introduced only a few years ago with the help of irrigation has made tremendous progress. Central aid for this scheme has helped the State to go ahead with this project in a big way.

Gujarat has produced 18.82 lakh tonnes of kharif groundnut and a further 10 lakh tonnes of summer groundnut, together making for a record total of 22 lakh tonnes in 1981-82. In the previous year, 1980-81, the State produced 13.81 lakh tonnes of kharif groundnut and 2.64 lakh tonnes summer groundnut; in 1979-80, it produced 16.68 lakh tonnes of kharif groundnut and 0.45 lakh tonnes of summer groundnut; in 1978-79, Gujarat produced 17.86 lakh tonnes of kharif groundnut and 0.37 lakh tonnes of summer groundnut. It can be noticed from the above figures that while the production of kharif crop, being dependent on the whims of fancies of monsoon, fluctuates violently from year to year, the production of summer groundnut, which is dependent on assured irrigation, has steadily over the years.

The average production during the five-year period between 1978-79 and 1981-82 was a little less than 18 lakh

introduction of high yielding variety JL-24, (3) extending an umbrella for plant protection, and (4) bringing an additional 50,000 hectares under summer groundnut, where there is an assured supply of water.

Agricultural strategists in Gujarat believe that a major breakthrough in groundnut production could come only through employing better irrigation techniques in the kharif cultivation. In this direction, they have decided to increase not only the acreage under pre-monsoon irrigation and supplementary irrigation, but also step up proper dissemination of advice on appropriate scientific technology to farmers. As groundnut needs very light irrigation, the authorities would encourage adoption of sprinklers for the purpose.

Another major step to boost production of groundnut would be introduction of high yielding variety of JL-24. Due to high prices, at present the pace of seed multiplication is slow. In addition, at present seed storage volume is large and spoilage losses due to poor storage conditions is very high. As a result, private commercial organisations have been wary of taking up the business of seed multiplication. In this circumstance, the Gujarat State Seed Corporation has launched an ambitious programme of multiplication of high yielding JL-24 seeds both in Gujarat and Andhra Pradesh.

BOMBAY

CONSIDERING the constraints like credit squeeze, rising input costs, etc, within which the Indian machine tool industry has to operate, its performance in both production and exports last year could be described as commendable. The industry's production and exports achieved, respectively, a growth of 25 per cent and 12 per cent.

Output in terms of value rose to Rs 277 crores as against Rs 221 crores in 1980, according to data compiled by the Indian Machine Tool Manufacturers' Association. The increase was shared by the following groups with growth in output shown in brackets: Group A — metal cutting and metal forming machine tools — Rs 146.42 crores (24 per cent); Group B — welding and plastic machinery, die casting machines, machine tool accessories and tools — Rs 79.76 crores (33 per cent) and Group C — small and cutting tools, testing and measuring equipment — Rs 50.49 crores (19 per cent).

Exports improved to Rs 23.25 crores in 1981 from Rs 20.85 crores in 1980. Of the exports, Group A accounted for Rs 14.64 crores showing a growth of six per cent; Group B for Rs 4.14 crores (32 per cent) and Group C for Rs 4.48 crores (15 per cent). Increase was particularly notable in the case of exports of lathes; drilling machines, bending and folding machines.

The thrust made into the export markets of industrially advanced coun-

MACHINE TOOLS

Credit squeeze curbs growth

From V. J. PETHE

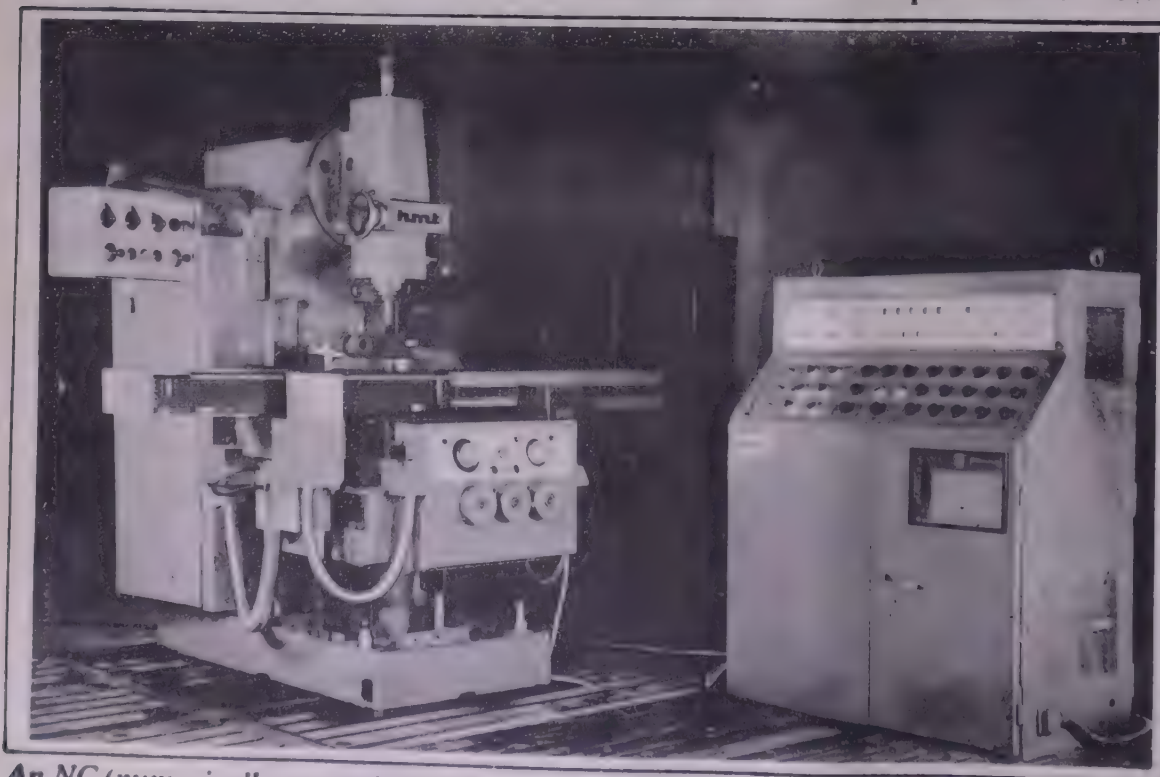
ries by the machine tool industry continued last year. About 54 per cent of machine tool exports went to the following ten major countries: USA remained the top buyer with Rs 289.82 lakhs (Rs 285 lakhs in 1980); West Germany retained the second position with Rs 153.61 lakhs (Rs 165.50 lakhs); USSR emerged as the third largest buyer with Rs 145.12 lakhs and Nigeria came at the fourth position with Rs 125.29 lakhs (sudden emergence of Nigeria is accounted for by supply of machine tools by the public sector owned Hindustan Machine Tools for a turnkey project there). Other buyers were Singapore with Rs 122.58 lakhs (Rs 94.39 lakhs); UK with Rs 112.30 lakhs (Rs 158.22 lakhs); Canada with Rs 105.09 lakhs (Rs 120.77 lakhs); Sweden Rs 99.27 lakhs (Rs 140.54 lakhs) and Australia with Rs 65.30 lakhs (Rs 113.60 lakhs); Japan displaced Sri Lanka to get the tenth position with Rs 54.48 lakhs.

In all 79 countries bought machine tools from India last year as against 67 in 1980. Among the export items, lathes accounted for 28.3 per cent of total

exports, drilling machines for 11.2 per cent, grinding machines for 5.2 per cent, milling machines for 4.3 per cent, plastic working machinery for five per cent and machine tools accessories for 9.3 per cent.

According to Mr S. D. Sulakhe, secretary of Indian Machine Tools Manufacturers' Association, the performance of the industry could have been far better if the general industries using machine tools were not hit by the credit squeeze. The fund position is so tight that even the machine tools ordered are not being lifted by the users. Mr Sulakhe outlined three measures for a rapid growth of the industry: (1) Make credit available to the machine tool user far more easily; (2) delicense the machine tool industry (at present because of the cumbersome procedures no entrepreneur is venturing into this field; in fact, in the last five years no new machine tools unit has come up); (3) liberalise imports at reasonable rates of customs duties (currently high priced machine tools attract a tariff incidence of 30 per cent whereas low priced ones have to bear 62 per cent). Happily, the Government has recently liberalised the industrial policy in relation to machine tools and has continued the open general licence policy for imports of machine tools. This should provide the way for producing still better machines as the industry is exposed to the latest developments in the area taking place abroad. The liberalised industrial policy has helped the machine tool industry, like other capital goods industry, to diversify in order to widen the product base and take up manufacture of new types of products required by user industries.

On the question of collaboration in machine tool manufacture, Mr Sulakhe points out that the very character of collaboration is now changing. In the initial period of its development, the industry was largely dependent upon the import of know-how and machine tools which were being manufactured under licence.



An NC (numerically controlled) vertical milling machine developed by the Central Machine Tool Institute of India. CMTI was the pioneer in developing NC machine.

arrangements and technical collaborations with companies from West Germany, the UK, Switzerland, Czechoslovakia, France, the USA, etc. There are as many as 150 collaborations in machine tools and allied products. But most of these collaborations and licensing arrangements are now over and Indian machine tool builders have developed their own design capability and established research and development facilities to make machine tools for both home and export markets. Exposure to international machine tool fairs like Hannover and Chicago has encouraged the manufacturers in India to update their technology. While in the early seventies per cent of machine tool output was based on imported technology, this reliance has now come down to 20 or 30 per cent. The industry spends about four per cent of its production cost on R & D.

Indo-German collaboration in machine tools

THERE are at present 18 Indian companies in machine tool field which are or were using the West German technical and/or financial collaborations numbering 27. Of the 26 technical collaborations, only 12 are still continuing, rest of the technical and/or financial collaborations having already expired between 1957 and 1974.

Of the joint ventures, Machinery Reconditioning Co. (established in 1978), Madras, is yet to start production of smaller unit heads and special purpose machines, whereas Sur Hennig Private Ltd. at Bangalore was scheduled to commence production of machine tool protection and auxiliary equipments in 1981.

Items for which German collaboration has come in are: gear shaping cutters; gear hobs; follow on tools and precision dies; hydraulic presses; milling machines; grinders; spindle automatics; turret/capstan lathes; broaches and their sharpening machines; precision chucks; electromechanical actuators; tool holders and collets; drilling machines; refractory presses; twist drills; reamers; and tungsten carbide products.

Elaborating his point that the character of collaboration is now changing, Mr Sulakhe says that the collaborations now involve manufacture of machines with both foreign and Indian technology to meet the requirements of other countries. For the Third World especially, collaboration between India on the one hand and Germany, the UK or Switzerland on the other is going on for setting up training institutes and for manufacturing turning machines, drilling machines, bench

grinders, shapers, etc. In fact, possibilities in these areas are enormous. Asked if the industry is going in for high technology tools, Mr Sulakhe clarifies that as far as India is concerned, the accent for the present is on making highly productive and sophisticated machines like automats, grinding machines, NC machines, and gear cutting machines. Major collaborators in these areas are Germany, the USA and Japan and the UK.

KERALA BUDGET

Agricultural prices commission constituted

TRIVANDRUM

THE Finance Minister of Kerala, Mr K.M. Mani, presented to the state Assembly on July 2, 1982, the 1982-83 budget of the State which showed an overall deficit of Rs 24.81 crores. Total receipts were placed at Rs 839.62 crores and total expenditure at Rs 864.43 crores. The net deficit of Rs 24.81 crores was worked out after an anticipated additional receipt of Rs 22.1 crores including Rs 1.80 crores from fresh taxation. The deficit was proposed to be covered by an increase in non-tax revenue and by an economy drive. The cumulative deficit of Rs 93.93 crores as at the end of March 1982 in terms of an overdraft on the Reserve Bank of India was recently converted into a five-year loan.

This is the first budget presented by the new Congress(I) led United Democratic Front Ministry, which assumed office on May 23. Earlier, when Kerala was under President's rule, its 1982-83 budget was presented to the Lok Sabha on March 25 which had shown a net deficit of just Rs 1.28 crores.

Sales tax rates on both essential as well as luxury goods were proposed to be restructured in conformity with those of the neighbouring States. Out of Rs 1.80 crores the fresh taxes were expected to yield, Rs 1.50 crores were expected from a single item, namely, arrack. Wide-ranging concessions were also announced in general sales tax and agricultural income tax to the tune of Rs 44 lakhs. Additions to general sales tax were proposed on synthetic rubber foam, artificial silk yarn, plywood veneer, domestic electrical appliances, clocks, time pieces,

watches and stainless steel products. Reduction in sales tax among other items included milk products, rubber products except tyres and tubes, edible oils except coconut oil, aluminium goods, readymade garments, plastic products, agriculture machinery and biscuits. Taxes on industrial raw materials which were subjected to more than four per cent sales tax would now be reduced to four per cent. Sales tax on tapioca products was abolished. The budget proposed to raise the exemption limit in respect of multi-point taxation to Rs 50,000 and in respect of single point taxation to Rs 25,000.

Exemption limit for agricultural income was raised to Rs 20,000 in view of high cost of production.

On the expenditure side the budget provides for an additional dearness allowance to Government employees amounting to Rs 16.50 crores and other welfare measures amounting to Rs 5.15 crores. Major increases in non-plan expenditure are in interest payment, police, pension, education, medical field and construction of roads and bridges. According to the Finance Minister the thrust of the budget was to pave the way for the comprehensive development of the State, laying stress on solving the unemployment problem, accelerating the pace of industrial growth and increasing agricultural production. To achieve this the Finance Minister proposed setting up a self-employment agency and setting up a rupees one-crore industry in every taluk of the State — 2,500 small industries and 14,500 artisan units. An important proposal of the Finance Minister was to set up the Kerala Agricultural Commission to fix fair prices for farm output.

CHINA

A cautious borrower

From M. P. GOPALAN

HONGKONG

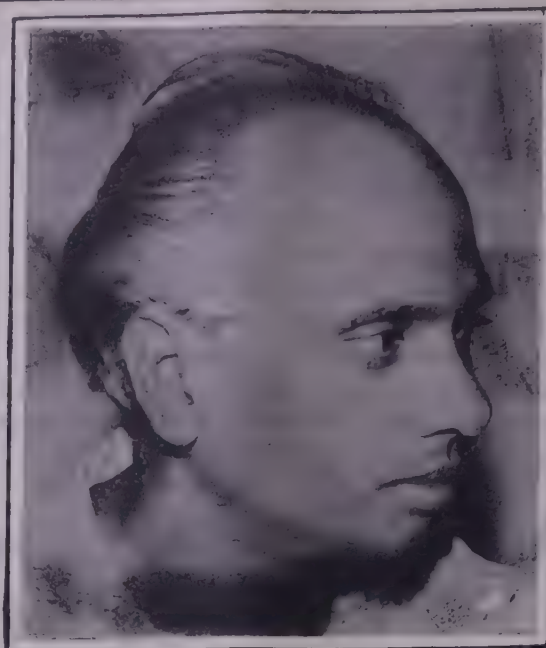
CHINA'S external debt amounted to \$ 4.7 billion last year. This is expected to rise to \$ 7.5 billion in 1983. Recently, Mr Tim Williams, vice-president of Bank of America's China Office in Hongkong, projected that 1985 would be a turning point for increase in the country's external debt.

China has now \$ 30 billion in credits and "has had little trouble raising credit-lines," said Mr Williams. More than half of the total credits China has accepted are in the form of foreign government export credits, about \$ 13 billion are commercial bank lines and \$ 2 billion direct loans from governments and the International Monetary Fund. Mr Williams said: "China has been extremely cautious in its use of these creditlines. I think greater use has been made of commercial credits and I don't think China will increase the amount available to the country."

The commercial credits generally carry a fine interest of about 0.5 per cent over the London interbank offering rate (Libor). "Apart from the uncertainty of floating rates, the historically high Libor rates in the past few years have acted as a significant deterrent to utilisation of these facilities," according to the Bank of America official.

Unofficial reports say that as of the end of 1981, China had drawn about \$ 200 million of the approximately \$ 13 billion in commercial bank credits arranged since 1979. The majority of the accepted credits had been for hotels, equipment imports and shipping purchases, represented by a broad spectrum of international banks from Hongkong, the US, Britain, Canada and West Germany.

China's external debt remains low relative to her exports. In the first nine months of 1981 total foreign trade had reached an estimated \$ 32.5 billion, a 20 per cent increase over the corresponding period of 1980, according to unofficial US Government figures. Exports were growing at 24 per cent whereas imports went up only by 16 per cent. The trend pointed towards an overall trade surplus for the year. China's exports amount to less than 10 per cent of GNP.



Mr Shripati Mishra

LUCKNOW

MR Shripati Mishra, who assumed office as Uttar Pradesh's new Chief Minister on July 19, heads a two-tier 26-member ministry. Mr Mishra has succeeded Mr Vishwanath Pratap Singh who resigned from office last month. Mr Mishra, who resigned as Speaker of the Assembly, was unanimously elected leader of the Congress (I) legislature party on July 18. He is the State's 13th chief minister.

Mr Mishra was born on January 20, 1924 at Seshpur village in Sultanpur

New UP
Chief Minister

district of UP. A graduate in law, also did post-graduate studies in economics at the Lucknow University. He entered active politics at the young age of 14 and was detained for brief periods during the independence struggle. He practised law at the Lucknow High Court.

Mr Mishra contested the first Lok Sabha election from Sultanpur as a Socialist Party candidate but was unsuccessful. He gave up party politics and worked for the Bhoodan movement for a few years after his defeat. He also qualified for the UP judicial service and worked as a magistrate. He resigned from the job in 1958 to join the Congress led by the late Jawaharlal Nehru. In 1962 he was elected to the Vidhan Sabha on a Congress ticket from the Kadipur constituency. In 1963, he was elected a member of the All-India Congress Committee and in 1967, he was returned to the Vidhan Sabha from the Jagdishpur constituency. Mr Mishra joined the Bharatiya Kram Dal (BKD) of Mr Charan Singh in 1968 and worked with the BKD for four years before returning to the Congress (I) in 1971.

Staggering overdues in agricultural
cooperatives

MADRAS

OVERDUES to the agricultural cooperative banks in Tamil Nadu, which have reached a peak level of Rs 135 crores against a demand of Rs 190 crores, have placed the Tamil Nadu Government in a fix as to how to recycle cooperative credit for agricultural operations in the coming year. Sandwiched between the farmers' agitation to write off agricultural debts *in toto* and the Union Government's mounting pressure to collect the arrears to the last paise, the MGR government is finding itself on the horns of a dilemma.

Awed by the strident recovery drive mounted recently by government officials to collect loan arrears, farmers' organisations have agreed to call upon their members to pay off 25 per cent of their overdues before June 20 to the coopera-

tives. It, however, remains to be seen whether all farmers respond to the appeal, especially in view of the dissent of Mr Narayanswamy Naidu to the agreement.

As of date, cooperative central banks in the State with a few exceptions, have not been able to reach a recovery level of 40 per cent, to become eligible to fresh loans. Agricultural credit is provided by about 4,700 primary agricultural cooperative societies at the village level, 15 central cooperative banks at the district level and the Tamil Nadu State Cooperative Bank at the state level. The structure provides short-term and medium-term loans for cultivation operations and subsidiary occupations. Total share capital of all the central cooperative banks stood at Rs 9.50 crores as on December 31, 1981 and deposits held by them at that date amounted to Rs 248.48 crore.

IDBI to promote backward district surveys

BOMBAY

THE Industrial Development Bank of India (IDBI) will promote surveys in 25 backward districts spread over the states of Bihar, Himachal Pradesh, Jammu and Kashmir, Madhya Pradesh, Orissa, Rajasthan, Sikkim, Uttar Pradesh, West Bengal and Karnataka, the Union Territory of Dadra and Nagar Haveli and the North-eastern region to identify industrial potential and opportunities in these districts. The surveys will include the preparation of project reports, market studies of specific products and arrangements will be made for financial technical and administrative assistance to specific projects, when necessary. The surveys will be undertaken by the Technical Consultancy Organisations sponsored by the IDBI and other financial institutions in different states.

It is estimated that in Tamil Nadu, there are 53.14 lakh agricultural operational holdings of which 42.04 lakhs (79 per cent) have been covered by membership of agricultural credit societies, as on December 31, 1981. Of this number, 10.5 lakhs are small and marginal holdings (76 per cent).

The agriculturists' agitation has landed the farm cooperatives in such a serious situation that a World Bank team is currently visiting Tamil Nadu to study the utilisation of its funds channelled through Agricultural Refinance and Development Corporation (ARDC), mostly as long-term credit for farming operations. The four-member team is also likely to visit Maharashtra and Gujarat. A task force set up by the Union Ministry of Agriculture is also visiting the state to study the performance of the cooperatives with particular reference to agriculture.

Tamil Nadu has remained in the forefront of cooperation for several decades, with as high a recovery rate of one hundred per cent. Credit provided by agricultural credit societies increased tenfold from a mere Rs 5 crores in the first Five Year Plan period to Rs 25 crores at the end of the Second Plan. It rose further to Rs 30.34 crores in the final year of the Third Plan and to Rs 78.82 crores in the last year of the fourth Plan. The first four years of the fifth Plan also saw a steady rise from Rs 7.68 crores to Rs 127.13 crores.

During 1978-79, short-term and medium-term loans issued to farmers amounted to Rs 102.65 crores. The figure, however, nosedived to Rs 42.70 crores during 1979-80 and touched a further low of Rs 25.77 crores in 1980-81. This slump was the result of the steep rise in the members' overdues on account of organised resistance to the repayment of crop loans since 1977-78.

Faced by such a tight financial position, the Tamil Nadu Government empowered cooperatives to take legal action against defaulters. The central banks acted swiftly and brought down the level of overdues to 32 per cent and became eligible to operate on their RBI credit limits for issuing fresh loans for seasonal agricultural operations.

During the current financial year, the central banks have issued agricultural loans to the extent of Rs 65.57 crores up to the end of December 31, 1981 as against a target of Rs 130 crores for the year. The total issue for the financial year will at the most reach the 1978-79 level.

The problem of overdues has reached gargantuan proportions as a result of the agriculturists' agitation, even after the Government had given various concessions, such as conversion of short-term loans into medium-term loans, and re-phasing of the loan periods, to mitigate the hardships caused by natural calamities, such as drought and flood. Such facilities were offered to the extent of

Rs 34.10 crores in 1974-75, Rs 13.15 crores in 1975-76, Rs 31.22 crores in 1976-77 and Rs 28.11 crores in 1977-78. Further, on the recommendation of the statelevel high power committee, the government announced some more concessions in 1979 and in 1981-82 waiving penal interest, refunding or waiver of normal interest, consolidation of two or more loans into a single loan and scaling down of interest on farm loans. These concessions were to the extent of Rs 52.72 crores, benefiting 2.35 lakh borrowers in 1979 and Rs 15.41 crores benefiting 8.67 lakh borrowers in 1981-82.

Notwithstanding all these concessions, overdues from members kept mounting. From a modest Rs 16.40 crores in 1973-74 (17.4 per cent of demand) it rose to Rs 165.07 crores (73.4 per cent) in 1979-80 as detailed below:

Year	Overdues (Rs in crores)	Percentage to demand
1973-74	16.40	17.4
1974-75	22.94	20.5
1975-76	32.62	24.8
1976-77	41.61	27.9
1977-78	68.55	32.9
1978-79	118.94	52.5
1979-80	165.07	73.4

As on December 31, 1981 overdues from primary societies to central cooperative banks amounted to Rs 75.83 crores, which works out to 87 per cent of total demand. As a result of the rising trend of overdues, the central banks were not able to show adequate cover against their borrowings from the Tamil Nadu State Cooperative Bank (apex bank) and committed defaults. The government went to their rescue by sanctioning ways and means advances to the extent of Rs 50.13 crores, to enable them to clear their arrears, draw upon the Reserve Bank's credit limit and to issue fresh loans to farmers.

Why are the farmers agitating even after so many concessions by Government is a moot question. Farmers' associations, particularly the Vivasayigal Sangham led by Mr C. Narayana Swami Naidu, are insisting that the entire debt burden of all farmers should be wiped off, in fulfilment of the AIADMK's election pledge. Mr M. G. Ramachandran who no doubt gave such a blanket assurance is now finding it impossible to implement the promise. For the present the agitation has been suspended in view of the proposed dialogue between the government and farmers' representatives in June.

Bombay spot exchange rates of currencies as on 19th July 1982

(Currency units per Rs 100)

Country	Currency	Selling T.T.D.D	Buying T.T.Clean
Australia	A. \$	10.235	10.455
Austria	A. Schilling	180.80	184.50
Belgium	B. Franc	485.50	496.00
Canada	C. \$	13.070	13.340
Denmark	D. Kroner	88.30	90.00
France	Franc	69.95	72.40
Hong Kong	H.K. \$	61.00	62.25
Italy	Lira	14257	14548
Japan	Yen	2631	2677
Malaysia	M. \$	24.37	24.84
Netherlands	Guilder	28.15	28.66
Norway	N. Kroner	65.60	66.90
Singapore	S. \$	22.20	22.63
Sweden	S. Kroner	63.10	64.60
Switzerland	S. Franc	21.67	22.08
UK	£	5.9995	6.0435
USA	\$	10.440	10.545
West Germany	D.M.	25.53	25.97

Source: Syndicate Bank, International Division, Central Office, Bombay 400 021.

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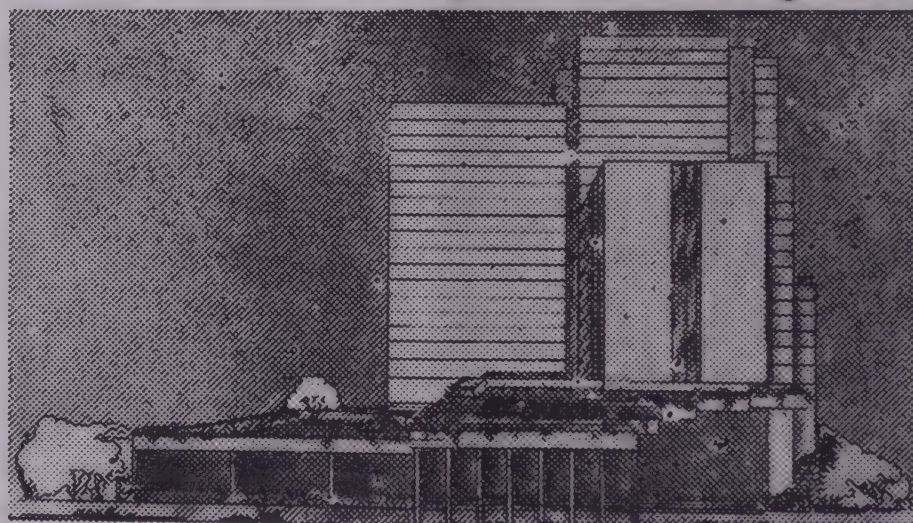
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COMMERCE

VOL. 145 No. 3711 Bombay, July 24, 1982



INDO-US COOPERATION

— A SURVEY

Important selected indicators of the economy
Comparative data — USA and India
Compiled by COMMERCE RESEARCH BUREAU

Item	Unit	USA	India	Item	Unit	USA	India
Gross national product 1980				Production of principal crops 1981			
Aggregate	\$ '000 million	2,582	159	(a) Wheat	Million tonnes	76.0	36.0
Per capita	\$	11,360	240	(b) Rice (paddy)	Million tonnes	8.0	78.0
Population				(c) Maize	Million tonnes	208.0	7.0
Total 1981 (Mid-year estimate)	Million	230	684	(d) Cotton (lint)	Million tonnes	3.4	1.4
Average annual growth (1971-81)	Per cent	1.1	2.2	(e) Groundnut in shell (1980)	Million tonnes	1.0	6.4
Density (1981)	Persons per sq km	25	208	Production of principal minerals 1981			
Urban population (1980)	Per cent	73	22	(a) Coal	Million tonnes	732.8	109.0
Population of major cities				(b) Crude petroleum	Million tonnes	421.0	15.0
USA (1980)	India (1981)			(c) Iron ore (1980)	Million tonnes	70.4	41.0
New York	Calcutta	Million	7.0	(d) Copper ore (1980)	'000 tonnes	1,175.3	24.0
Chicago	Greater Bombay	Million	3.0	Energy consumed 1976			
Los Angeles	Delhi	Million	3.0	(a) Solid fuels		544.4	97.0
Philadelphia	Madras	Million	1.7	(b) Liquid fuels	Million metric	1,127.5	28.0
Detroit	Hyderabad	Million	1.2	(c) Natural gas	tonnes of coal	753.3	1.0
Structure of employment 1979				(d) Hydro and nuclear	electricity	60.3	4.0
(Percentage share of each sector in total employment)				Per capita consumption			
(a) Agriculture	Per cent	2	71	Energy (coal equivalent)(1979)	Kg	12,350	24.0
(b) Industry	Per cent	32	11	Crude steel (1980)	Kg		1.0
(c) Services	Per cent	66	18	Foreign Trade 1981			
Area				Exports	\$ million	2,33,739	7,30
Total geographical area ..	'000 sq km	9,363	3,288	Imports	\$ million	2,73,352	13,90
Arable land as per cent of total geographical area..	Per cent	20.2	50.0	Trade balance	\$ million	-39,613	-6,60
Yield per hectare of principal crops 1981				Indo-US trade 1980			
(a) Wheat	Kg	2,321	1,649	USA's share in India's exports	Per cent	12.2	
(b) Rice (Paddy)	Kg	5,462	2,005	USA's share in India's imports	Per cent	13.7	
(c) Maize	Kg	6,898	1,207	India's share in USA's exports	Per cent		0
(d) Barley	Kg	2,812	1,231	India's share in USA's imports	Per cent		0
Fertiliser (NPK) consumption 1979-80				Monetary unit			
1979-80	Kg/hectare of arable land	110.6	29.6		Dollar		Rupee
					(\$)		(Rs)
						\$ 1 = Rs 9.5	
				Spot rate as on July 12, 1982			

Note: (a) 1980

- SOURCES: 1. United Nations, *World Energy Supplies, 1972-1976*
2. *World Bank Atlas, 1981*
3. The Macmillan Press Limited: *The Statesman's Yearbook 1981-82*
4. *World Development Report 1981*
5. *FAO Monthly Bulletin of Statistics, various issues & Production Yearbook 1979*
6. United Nations, *Monthly Bulletin of Statistics May 1982 and December 1979*
7. The International Monetary Fund: *International Financial Statistics, July 1981*

Differences among democracies

HAT a visit by an Indian Prime Minister to the United States should provoke considerable discussion is itself an index of the unusual relationship between two leading democracies of the world. India and the United States share common values. India and the United States believe in basic human freedoms. They both have practised a civilised method of changing their rulers through elections in a peaceful manner. But where the similarity ends. India is a democracy with a *per capita* income of only \$ 250 while the United States is a democracy with a *per capita* income of \$ 4,000. India has a population which is 16 per cent of the world's population but her share in the world's wealth is only 2 per cent. The United States with 6 per cent of the world's population has a share of about 25 per cent of the world's wealth. India was liberated from the British rule nearly 35 years ago while the United States threw off the British rule more than 200 years ago. During this period the United States became a super power while India made planned efforts to develop its economy with the result that today it ranks the 15th among industrial nations of the world. India has adhered to the path of democracy and her democratic institutions are among the most vital institutions in the world.

This should have been a matter of course for the United States, which assumed the role of the leader of the democratic world. But the United States was also engaged in the cold war with the Soviet Union — the other super power — and assumed a stance which in effect convinced that those who were not with the USA were against that country. India, being a newly freed country did not want to get involved in the quarrels of the weak and the powerful. So the United States found in Pakistan an ally who could be a South Asian friend of the Atlantic Alliance and began to arm it. While the United States sincerely believed that the arms given to Pakistan were to

be used earlier against China and then against the Soviet Union, the military dictators of Pakistan used the American arms in the two Indo-Pakistan wars which unsettled South Asia both economically and politically. As the Soviet Union responded favourably to India's request for military hardware, the two major countries of South Asia became client states of the two super powers. As a result of these developments the United States thinks, sometimes quite rightly, that India, a leader of the non-aligned movement, tilts towards the Soviet Union, while India thinks, also quite justifiably, that the United States is not neutral as it goes on arming Pakistan at the expense of India — the major power of South Asia. The United States seems to have written off India in so far as its strategic equations are concerned. India thinks the United States, wittingly or unwittingly, has been harming her vital interests and when the chips are down it would side with her opponents rather than remaining neutral. This then is the background of the differences between India and the United States. Details are more complex, but the basic scenario has remained unchanged for the past thirty years.

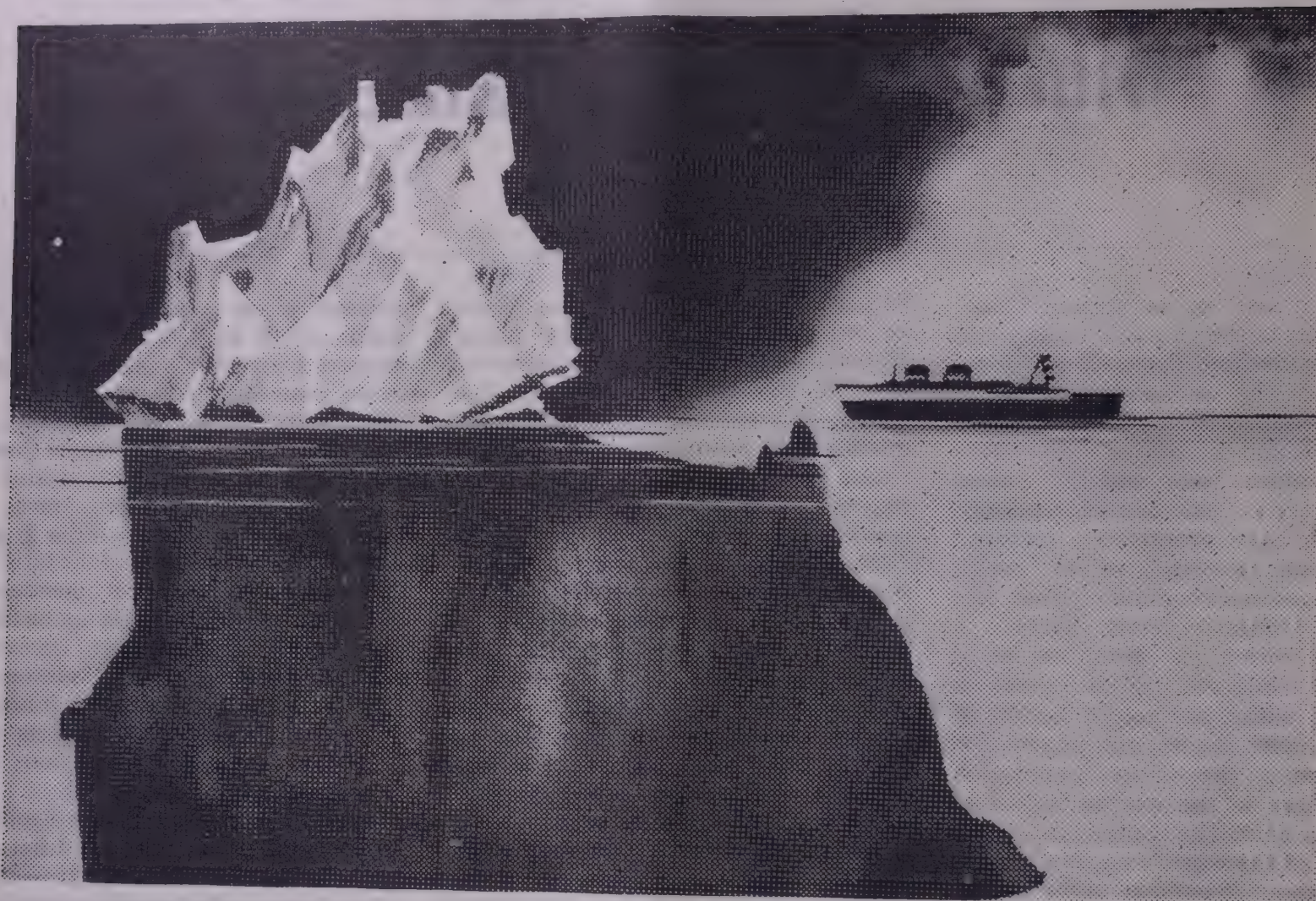
While political relations continue to be tense, there has been tremendous economic cooperation between the two countries. The United States today is India's largest trading partner, followed by the Soviet Union, and in the matter of foreign collaborations also America is ahead of other nations. But this does not give even a faint idea of the huge potential. For instance, India's share in the US's total imports is a paltry 0.5 per cent and in the total US exports just 0.8 per cent. So, for economic cooperation literally the sky is the limit. The United States, which had taken lead in helping India economically in the 50s and the 60s, can now play an equally useful role of promoting trade between the two countries. India has had a chronic trade deficit *vis-a-vis* the United States. At

present we are exporting to the USA goods worth Rs 850 crores while our imports from that country amount to more than Rs 1,500 crores. So, our imports are almost twice our exports to that country. In view of the fact that our share in American imports is less than one per cent the United States can encourage imports from India in a big way. A general lowering of the tariff wall may help not only India but other developing countries also. It should not be forgotten that the rate of growth of US exports to the developing countries is faster than that to the rich countries. So, it is in the US interest to open its markets more liberally to manufactured goods from India.

This might turn out to be a significant step in ironing out political differences between the two countries. It would be idle to believe that misunderstanding of the past three decades can be removed by a week's visit of the Prime Minister to the United States. But a beginning should be made in a few specific areas where differences are the minimum. The US know-how in the field of infrastructure such as irrigation, warehousing and power could also be liberally used with local adaptation, so that while implementing those programmes they may become more labour-intensive and less capital-intensive. This might also help the Reagan administration's battle against recession and unemployment. If the United States adopts a liberal foodgrains export policy for the Soviet Union, surely it can help evolve an imaginative agricultural development policy for India which has achieved a measure of self-reliance in the matter of foodgrains output. Trade and agriculture are two areas where a beginning could be safely made. If the two countries decide to work together to alleviate avoidable human misery they will learn to appreciate their political differences with a greater degree of tolerance.

Vadilal Dagli

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I welcome this opportunity to contribute to the special supplement by *Commerce* magazine, which comes at a propitious time, the eve of Prime Minister Mrs Gandhi's visit to the United States.

I was asked recently by an Indian journalist if there was something special about this visit. I answered that there is indeed something special in Prime Minister Gandhi visiting America at this time. Firstly, it has been 11 years since he last visited our country. Much has changed in that time. As a leader with one of the longest tenures as head of government in the world, it makes it important for there to be renewed contact between the Prime Minister and the leaders of the United States. I am convinced of the intrinsic importance of the relations between our two democratic countries, and for that reason attach



Mr Harry G. Barnes, Jr.

The importance of Indo-US cooperation

By HARRY G. BARNES, Jr.

US Ambassador to India

importance to the widest possible dialogue particularly at the uppermost level of our two governments.

Beyond that, this visit is important for a whole variety of reasons. It is continuation of the dialogue the Prime Minister and President Reagan began in Cancun. Most fundamentally it provides them an opportunity to share what each is thinking about on matters of common concern, and to see how these concerns can be translated into ideas for a positive impact on our bilateral relationships as well as on questions of worldwide importance. Furthermore, the visit offers a chance for the leaders of our two countries to use their meeting to develop a more broadly based and effective relationship.

Trade links

In one important aspect, I am quite hopeful that the already substantial trade links between India and the United States can be extended still further. Our total port-import turnover between the two countries for the last year was about \$ 3 billion, and I am optimistic that our two

way trade will be increased in the years ahead.

It can grow, I believe, because of the abundant talent represented by the business communities of the two countries, because our trade is essentially complementary and because I find there is on both sides a growing interest in expanding trade. Certainly so far as the United States is concerned, the country, starting with President Reagan, is committed to free trade. He and members of his Administration have spoken often as well of the great benefits trade can bring to all countries' development.

In addition, we should look at our commercial relations in the broadest context. To illustrate, US and Indian companies are collaborating in India to produce the items the Indian economy requires domestically as well as to boost its export performance. In this connection, an interesting recent development was a collaboration agreement in the high-technology area of computer peripherals between American and Indian firms. There are many examples of growth areas in our bilateral trade. US companies are

active in such fields as oil exploration mining automotive components, machine tools and others where technology that we have developed in the US will be useful in meeting the needs of the priority sectors of the Indian economy. In return, India has grown to be a major supplier of diamonds to the US and Indian carpets find growing acceptance. More exciting, perhaps is the entry of Indian firms into the US with their sophisticated computer software product.

High technology

I believe that India appreciates the high technology US companies are providing. It is auspicious that Prime Minister Gandhi, in a message to the Indo-US Business Council meeting in New Delhi last February, explained that there is definitely scope for US investment and trade, particularly in the area of sophisticated technology.

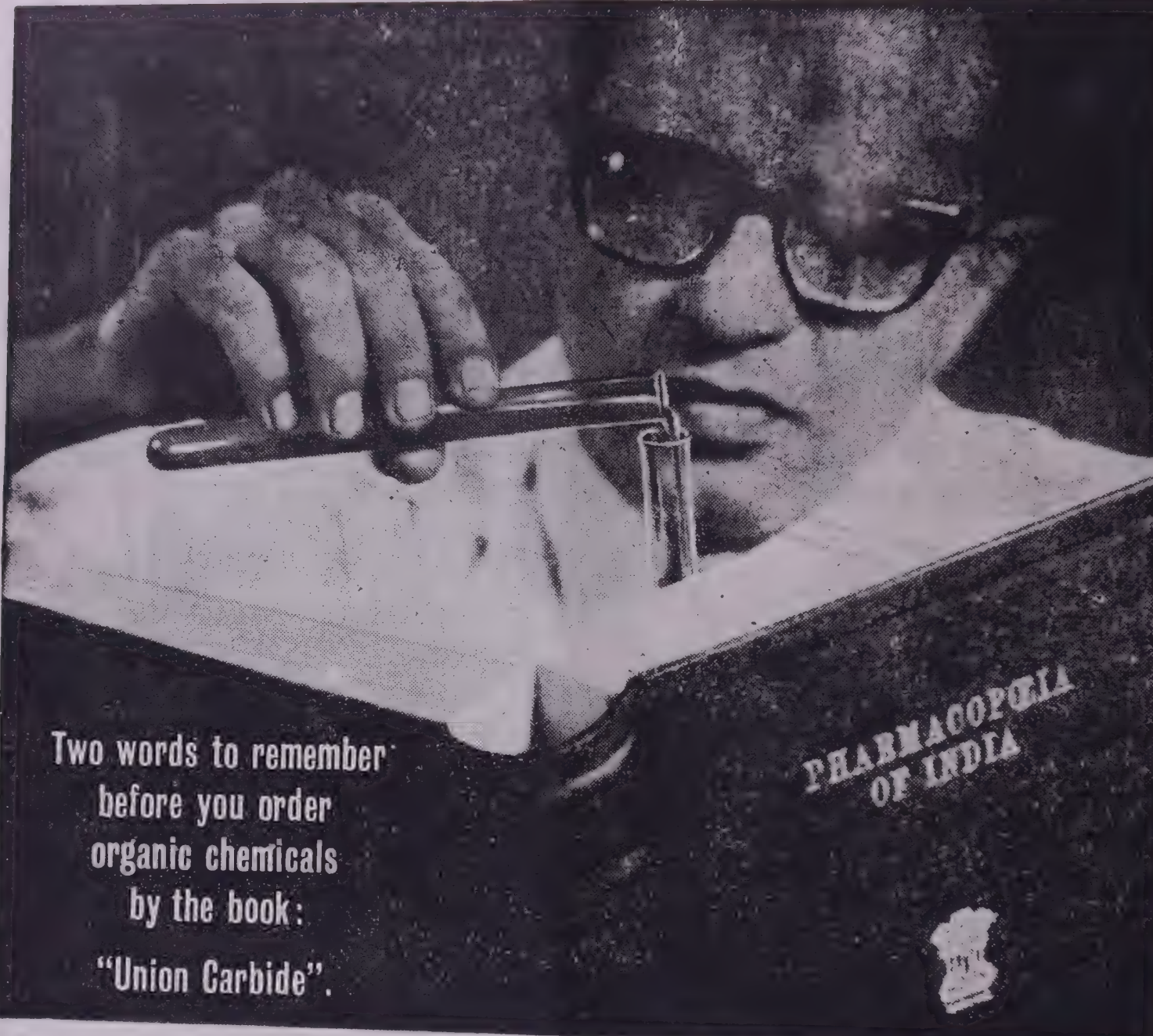
US companies are responding. Over the last two years a record number of Indo-US collaboration agreements have been approved by the Government of India. I was pleased to see that the American share is the largest. This confirms two trends: One, the usefulness of collaboration from the Indian standpoint, but also, the increasing interest of American firms in establishing a permanent relationship with India.

Admittedly, in the 60's and into the 70's companies did not show as much interest in India as they did, for example, in South-East Asia, or Western Europe, or Latin America. The invitation from Prime Minister Gandhi and the Government of India to the US business community, that there is scope in India for American firms, is being heard by decision-makers in American companies.

It remains true that some American firms have somewhat outdated or distorted information about investment policies and practices in India. Other countries' efforts to attract American collaborations have been, in the past, heard more clearly by the US business community. As a rule, it is not aware of market opportunities and success stories or the recent steps in India toward a more pragmatic approach, including growing interest in business collaborations with foreign firms.

Positive image

By contrast, companies experienced in India project a more positive and

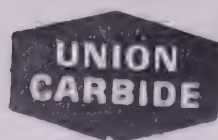
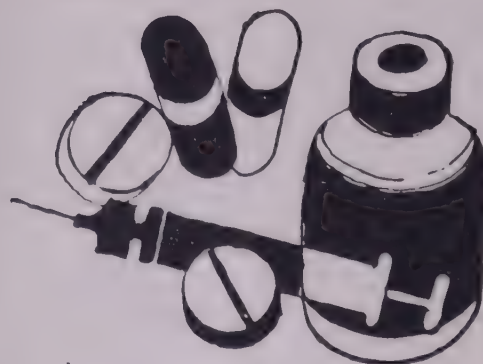


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timistic image of the Indian scene. They use a changing, more pragmatic attitude toward the private sector and are generally more confident now than in the recent past. They see economic conditions improving over the mid-term with greater incentives to industrial expansion. Stepped-up foreign commercial borrowing at very favourable rates is seen by many as a good omen of India's standing abroad. They believe that US firms are uniquely capable of responding to India's determination to obtain the technology needed to bring about greater modernisation and high productivity in Indian industry. A number of major US firms are taking a fresh look at India.

In this connection it was useful that a delegation from the Indo-American Chamber of Commerce recently visited several American cities in May to explain in a businessman's language, these opportunities and to describe the Indian business climate. Additionally, Indian representatives are attending major trade fairs in the United States. To illustrate, the Minister for Science and Technology recently was in Boston with a large group of Indian industrialists to attend an American convention and trade show in the field of electronics.

My general point is that given the

emphasis in India on increasing productivity by concentrating on priority sectors where the United States has relevant experience, there are, I believe, important areas where Indian and American companies can join together.

Democratic Ideal

In my travels around America before coming to India last fall and in my travels around India since my arrival I have been asked many times about the problems and irritants in the relationships between India and the United States. In our two democratic societies such problems and irritants are properly open to free discussion and I believe they have been discussed and debated in detail. I would submit that there is now much more that ties India and the United States together than separates us. These ties, I believe, are far more important and enduring than the problems that arise from time to time. These ties of mutual interest include strong cooperation in trade and commerce. They include long-term cultural ties and productive cooperation between our two countries in the fields of science and technology as well.

If one accepts the primary assumption that India and the United States have a common attachment to a democratic ideal, then it seems to me that it is very

important that we make a strong effort to try to understand each other's interests, each other's concerns and each other's actions. This does not mean, of course, that our points of view on a particular issue must always be the same. What might be uppermost in Indian minds today might be of secondary concern to us, and *vice versa*. We should not become too upset about the fact that we sometimes disagree. But having said that, the other point about democracy is a recognition of the importance of trying to reach some sort of understanding whether we agree or disagree. It is important to have a willingness to look for ways and elements that are important to us both.

I am encouraged that there is an interest in trying to find that common interest — an interest in seeing if we can enlarge the area of common concerns. My feeling is that there is indeed a genuine interest on the part of both the United States and India to try to find such a longer term view.

In summary I believe we should take a long-range approach based on similar ideals, and try to understand each other's concerns better. We should try to solve problems where we can. And where we can't then at least we should try to reduce the seriousness of the problems.

US investment in India 1979 and 1980

Compiled by COMMERCE RESEARCH BUREAU

	Cumulative investment				Percentage change in 1980 over 1979	Investment during the year				Rate of return on investments	
	1979		1980			1979		1980		1979	1980
	Rs crores	\$ million	Rs crores	\$ million		Rs crores	\$ million	Rs crores	\$ million		
Total manufacturing	211	267	229	289	+8.5	25	32	17	22	14.6	12.8
Food products	N.A.	N.A.	N.A.	N.A.	—	N.A.	N.A.	N.A.	N.A.		
Chemicals, allied	115	145	125	157	+8.7	12	15	10	12	16.6	14.6
Primary fabricated metals	19	24	18	23	-5.2	N.A.	N.A.	0.8	1		-4.3
Machinery, non-electrical	N.A.	N.A.	N.A.	N.A.	—	9	12(a)	N.A.	N.A.		
Transport equipment	5	6	6	7	+20	N.A.	N.A.	0.8	1	16.7	
Other manufacturing	N.A.	N.A.	N.A.	N.A.	—	3	4	N.A.	N.A.		
Petroleum	8	10	N.A.	N.A.	—	4	5	—	—	20.0	
Mining					—	N.A.	N.A.				
Trade	8	10	8	10	—	0.8	1(b)	N.A.	N.A.	10.0	10.0
Finance, insurance, real estate	N.A.	N.A.	N.A.	N.A.	—	3	4	—	—		
Utilities, transport	N.A.	N.A.	N.A.	N.A.	—	N.A.	N.A.	N.A.	N.A.		
Other sectors	N.A.	N.A.	N.A.	N.A.	—	0.8	1	N.A.	N.A.		
Total of all sectors	270	341	314	396	+16.3	35	44	44	55	13.5	11.4

Notes: Percentage change has been marked out on the basis of rupee figures.

Investment means book value of assets

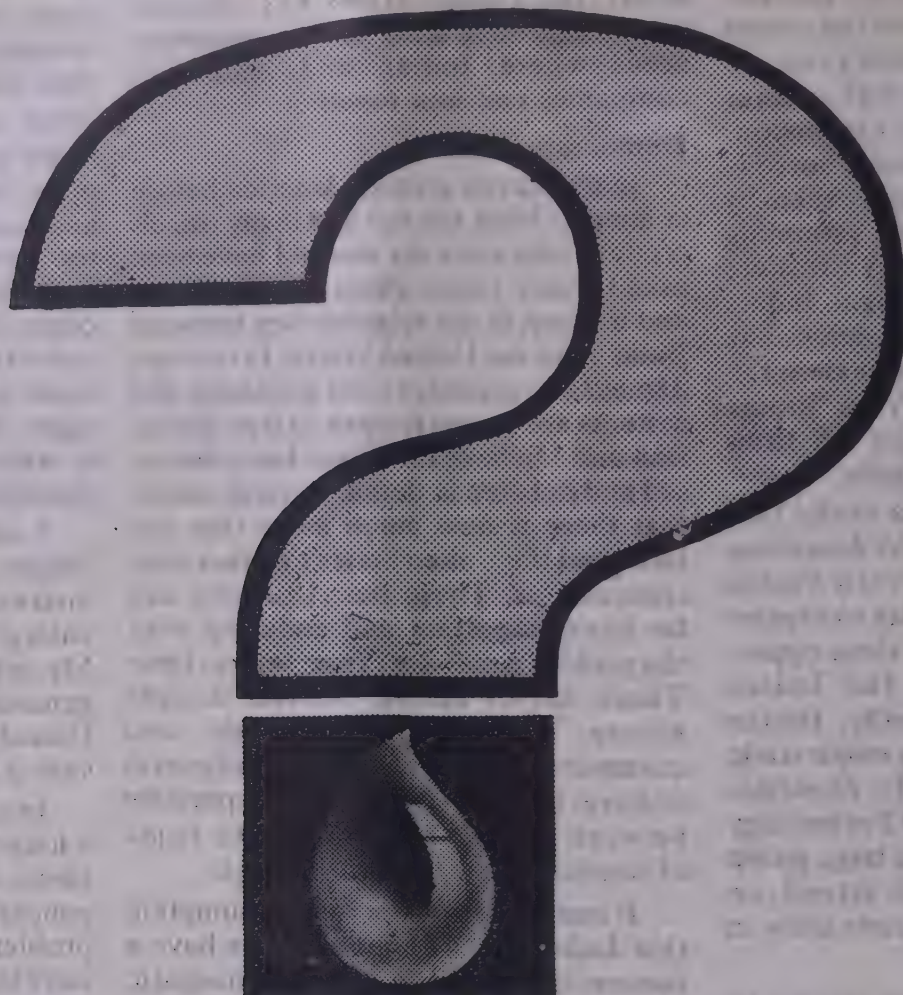
(—) means amount of less than US \$ 5,00,000

N.A. means not available due to suppressions of figures to avoid identification of individual companies

Blank spaces means that figures cannot be marked out because of missing data

(a) = Machinery; (b) = Only Finance, insurance

SOURCE: *Business Asia*, December 11, 1981



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The unfinished voyage of discovery

By K.R. NARAYANAN
India's ambassador to the USA

I am glad that *Commerce* is publishing a supplement on the occasion of the official visit to the United States by Prime Minister Mrs Indira Gandhi at the invitation of President Reagan.

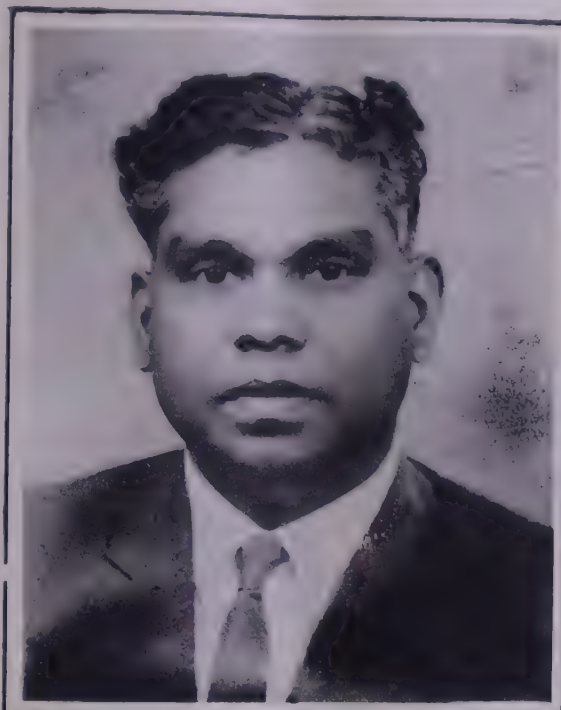
Mrs Indira Gandhi's visit to the United States would be her third as Prime Minister. She has been in the USA earlier with her father, the late Prime Minister Jawaharlal Nehru, during his three official visits. She is thus coming to the USA not as a stranger but as a friend carrying the goodwill and admiration of the people of India, nearly 700 million of them, to the great people of the United States of America.

Christopher Columbus in his voyage of discovery found America and thought it was India. The voyage of discovery, in a sense, still remains an unfinished business, and it is time that India and the United States explore and discover each other's mind and heart. There are many common values and interests of fundamental nature that we share and that ought to be understood in a deeper sense and integrated in a realistic manner to policies and programmes. We are the two largest democracies in the world and in the relationship between us is perhaps involved the future of democracy itself in the world.

The very nature and definition of democracy means freedom to differ, but "differ decently" and "agree to disagree" with mutual respect and friendship. One thing that we would discover in our exploration of each other is that our geographical and historical situations are different, and there are bound to be shades of differences in our view of the world and interpretation of events. Recognition of these facts of understanding of history will make our understanding of each other deeper, our friendship longer, and our cooperation more substantial.

The fundamental affinities between India and the United States outweigh differences, and there is an everwidening

area of cooperation between our two countries. It is on this area of cooperation that we can concentrate during this historic visit of the Prime Minister.



Mr K.R. Narayanan

India today is at a new stage of its economic and social development. Having achieved basic self-sufficiency in foodgrains, laid the foundations of economic self-reliance, and built up an impressive and diversified industrial and technological infrastructure, India is now in a position to receive and absorb investments and higher technology from abroad on an unprecedented scale, oriented, of course, towards the needs and priorities of our economy.

The favourable and liberalised climate for foreign investment in India is a story that is only beginning to reach the ears of the American public. So are the bright prospects of scientific and technological cooperation between our two countries, and the need for a vastly expanded cultural exchange programme as an indispensable condition for creating understanding and promoting friendship.

Better understanding and greater friendship and cooperation is the theme of any Indo-American summit meeting a theme that is at once simple, grand and meaningful.

International comparison of coal production: 1977

Compiled by Commerce Research Bureau

Country	Production (Million tonnes)	Percentage share of world production
USA	603.8	24.4
USSR	499.8	20.2
China	490.0(a)	19.8
Poland	186.1	7.5
UK	122.2	4.9
India	100.1	4.0
West Germany	91.3	3.7
South Africa	85.6	3.5
Australia	71.0	2.9
North Korea	45.1	1.8
Czechoslovakia	28.4	1.2
France	23.0	0.9
Canada	23.0	0.9
Japan	(18.2(b))	0.7
South Korea	17.2	0.7
Others	71.1	2.9
World Total	2,475.9	100.0

Notes: (a) Includes lignite and brown coal
(b) Includes brown coal

SOURCE: United Nations, *Statistical Yearbook*, 1978

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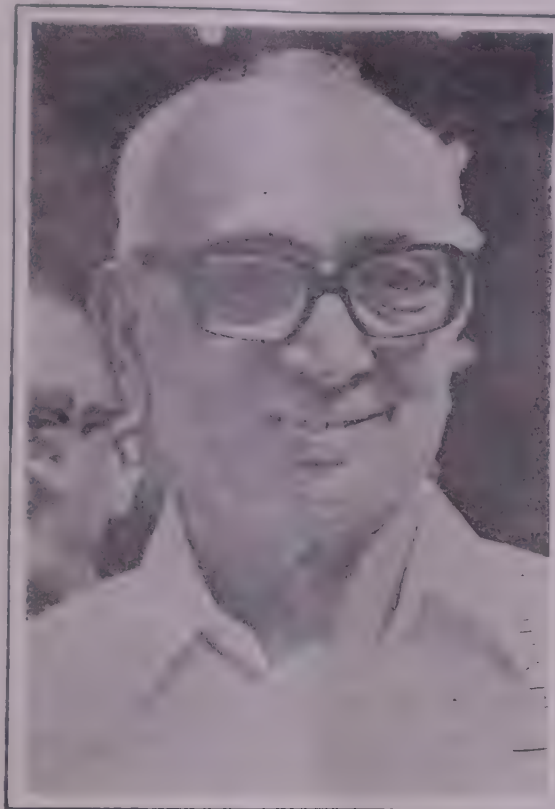
STUDENTS of Indo-American Relations have lately been busy assessing the possible outcome of the talks between the American President, Mr Ronald Reagan and our Prime Minister, Mrs Indira Gandhi during her forthcoming official visit to the United States of America. This is understandable since the relations between our two countries have for some time been anything but cordial and it is known that both countries have lately been putting out feelers for an effort to improve these relations. It is appropriate, therefore, that we in India should do a little introspection of our attitude towards the United States of America and the Americans, on the eve of the visit of our Prime Minister to the United States.

It is at the same time well to recognise that a short visit such as this may at best create a favourable atmosphere for further talks, which may result in a better understanding between our two countries and our two peoples. It would be unwise to expect anything more than this. Let us not overlook the fact that during the last three and a half decades the relationship between our two countries has been cordial only during the few years immediately following our independence; for the rest, the relationship has been one of outward friendliness against a background of deep distrust of each other. This is sad because we are both free democratic countries and respect very nearly similar values of life.

We are a non-aligned country today and have been so ever since the concept of non-alignment was evolved in the early 1950s by our own Prime Minister, the late Jawaharlal Nehru. When the idea of non-alignment was first mooted, it puzzled the practitioners of foreign affairs and was indeed greeted with derision. It was not long, however, before its value in defusing the tense atmosphere of the Cold War — between the western bloc, headed by the US government, and the communist bloc, headed by the USSR — was realised and the result that the concept was soon transformed into a movement and a number of countries adopted non-alignment as the cornerstone of their foreign policy. Today the non-aligned countries have organised themselves into a formal group which meets regularly at various levels and from time to time gives expression to their attitude towards the

Time for introspection

By H.M. PATEL



Mr H.M. Patel

problems, which currently agitate the world. But the wider acceptance of the concept of non-alignment has also led to considerable dilution of the concept itself. Nevertheless, it would be true to say that non-alignment has been of very great value in the efforts to maintain peace: certainly, it has helped immensely in preventing confrontation, when and wherever it has occurred, from spreading.

The concept, however, is difficult to define in precise terms and no non-aligned country has escaped the charge of leaning more towards some rather than others. India has thus almost always been charged with leaning heavily towards the Soviet Union. This impression has very largely been responsible for the American distrust of India's profession of a neutral attitude as between the two super powers — the USA and the USSR. The situation

has not been helped by ill-considered pronouncements on both sides. The result has been the creation of a wide gap in understanding, despite the predilection of friendliness towards each other between the average Indian and American.

Human memory is proverbially short and we in India appear to have even shorter memories. Ever since Independence, we have benefited enormously from assistance received from the USA in terms of foodgrains and direct development aid. That aid has far exceeded the total aid received from all other countries. The flow of aid has diminished relatively recently: aid from the USA continues nevertheless to be massive. Unfortunately for the USA it chose to diminish its aid exactly when Soviet Russia started increasing its! This process coincided also with the Indo-Soviet Treaty of 1971 on the one hand, which ensured India the promise of military support in certain circumstances, and the threat of attack by the Seventh Fleet on the part of the USA on the other, a threat which the then US President, Mr Richard Nixon fully intended to carry out had circumstances not made it obviously impossible. The inevitable consequence was that, in the wake of the US attitude in 1971, for the first time not only in official circles in India but even among the Indian people, the USA became unpopular.

Since then efforts have been made on both sides to improve the relationship. Some success was achieved during the period that Mr Jimmy Carter was President of the USA, and Mr Morarji Desai the Prime Minister of India. Latterly, Prime Minister Indira Gandhi has significantly softened her language and President Reagan and his colleagues have been avoiding giving expression to anything that may appear aggressive. It is to be hoped, therefore, that the discus-

Pfizer India: Profile of a Responsible Corporate Citizen

Thirty years of Pfizer operation in India have brought to the country a number of tangible benefits. In several areas, the Company has contributed significantly over the years both to the nation's exchequer and to the health and well-being of its people. Here are some of the salient contributions made by Pfizer during the 30 years of its existence in the country:

- The Company commenced operations in India as early as 1950.
- Pfizer has two manufacturing units in India — one at Chandigarh and the other on the Thane-Belapur Road.
- Pfizer commenced basic manufacture of isonicotinic acid hydrazide in 1956 — protein hydrolysate in 1956 — tetracycline and oxy-tetracycline in 1961 — para-aminosalicylic acid in 1961 — chlorpropamide in 1966.
- Today the Company has an employee-force exceeding 2,200 and all of them are Indians. Over 1800 employees have completed more than 10 years of service.
- The lowest paid employee in the Company gets approximately Rs850/- per month plus benefits.
- Pfizer became a Public Limited Company as early as 1966 and now has more than 25,000 shareholders holding 30 per cent Equity Shares.
- Pfizer India's earnings from exports over the last many years have exceeded their total remittance abroad for the same period.
- For introducing new Pfizer discoveries in India the Company does not pay any royalty or technical fees to its associates abroad.
- The Company's Research and Development Laboratories carry out on a continuing basis important programmes of product development, process improvement and import substitution. The import content last year was less than 2 per cent of the Company's total turnover.
- In 1981 Pfizer made the following contribution to the exchequer; Direct taxes Rs.3.22 crores — Indirect taxes Rs.8.03 crores — Total Rs.11.25 crores.
- Internationally Pfizer today has 140 manufacturing units and the Indian operation has an access to the improvements and developments that are taking place in any of these centres. In 1981, Pfizer spent on a worldwide basis, 140 crores of rupees on Research & Development.
- The Company has one of the most modern and up-to-date quality control laboratories in the country manned by highly qualified scientific personnel.
- The Company's product-range today covers pharmaceuticals, agricultural and animal health products, pharmaceutical chemicals and nutritional products.



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sions between the two on this occasion will be more fruitful than had been the talks between President Nixon and Indira Gandhi ten years ago. President Reagan has, there is reason to believe, no fixed antipathy to India and to judge from the Cancun meeting only a little while ago has no personal antipathy to our Prime Minister.

It has been said that in international affairs there are no permanent enemies or permanent friends. Each country regulates its affairs in accordance with what it considers to be in its interests at a particular time. This truth is very well understood and universally accepted. Nevertheless in practice there is a tendency not to give credit to other countries for acting according to such principle if they act in a manner not to one's liking. It is this failure which usually makes international negotiations unsuccessful. In fact it is also true to say that to be a successful negotiator, one must possess this quality to assume reality that the other party is seeking to secure its country's interests. I have set out these self-evident truths here only because they tend quite often to be forgotten, more particularly when emotions are surcharged and also when one allows oneself to be overwhelmed by what one considers to be in one's own interests. I venture to suggest that if these obvious and elementary principles are borne in mind, it might be possible to make worthwhile progress during the forthcoming talks.

Among the various matters that are to be discussed there are three which have hitherto been found to be difficult. They are: (a) Bases in the Indian Ocean, (b) arms aid to Pakistan with particular reference to F-16s and other highly sophisticated weaponry, and (c) nuclear policy. It would be a definite step in the direction of improved relations between our two countries if the talks result in a joint statement being issued expressing the desire of the two countries to do everything possible to see that peace and conditions are not disturbed in the Indian Ocean and in the sub-continent of India. There are important questions in the economic sphere which, if they are resolved in a satisfactory manner, will act as a stimulant to the Indian economy. But their solution can bear a little delay and indeed their resolution will be much easier in the more relaxed atmosphere that will follow these

Business cooperation: Role of Indo-American Joint Business Council

By BHARAT RAM

ECONOMIC relationships between developed and developing countries are governed by several factors. The prevailing international environment plays a key role. There is often a communication gap which tends to result in insufficient understanding of each other's point of view. Perceptions too are different leading to a kind of imbalance in approaches. In general, this holds good between India and USA too.

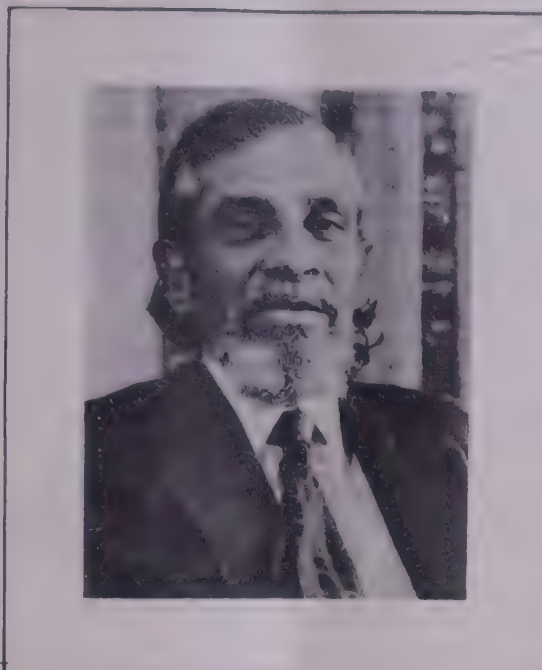
India ranks low amongst the trading partners of USA. It supplies less than 0.5 per cent of total imports. Similarly, we buy a meagre 0.6 per cent of total US exports. India's share is only 0.3 per cent of its private capital investment. On the other hand, the US is an important trading partner for India supplying 10 per cent of its total imports, purchasing 11 per cent of its exports and ranking second amongst the foreign investors of capital in India. Even minor changes in the US economic development policies or market conditions signify an impact on India, whereas important economic developments in India make only a slight impression on the US economy.

Although our exports to the USA have doubled from \$ 548 million in 1975 to \$ 1,097 million in 1980, the percentage rate of growth has not been steady. India has had a balance of trade deficit almost every year, excepting for 1977 and 1978.

American investments

As regards US investments in India, no doubt the US is the second largest investor, but India's share in direct capital investment by US enterprises constitutes a minor fraction of their overall operations. The major reasons cited for the low volume of investment are the regulations under FERA, our system of industrial licencing, low rate royalty payments and above all the complexity of our administrative procedures. In my view these have been grossly exaggerated.

It was with the aim of enabling Indian and American business decision makers to conduct a continuing dialogue that an Indo-US Joint Business Council was set up at the initiative of the two governments.



Dr Bharat Ram

On 28th October, 1974, an agreement was reached between the governments of India and USA to establish an Indo-US Joint Commission to explore the possibilities of fostering mutually advantageous cooperation in specified areas. At the meeting of the commission held in Washington in October, 1975, it was agreed, among other things, to "proceed with the establishment of a Joint Business Council bringing together business leaders of both the countries". The commission recommended the setting up of a Joint Business Council and noted that the Chamber of Commerce of the United States and the Federation of Indian Chambers of Commerce and Industry, together with organisations from the Indian public sectors, had agreed to participate in such a body.

Recognised channel

The Indo-US Joint Business Council conceived by the two chambers to provide

a regular and recognised channel for discussion between the business leaders of the two countries was to help:

- Ensure high level mutual awareness of bilateral relations by the business leaders of the two countries;
- Stimulate, broaden and facilitate business relations and contacts between the two business communities;
- Serve as a forum to propose and to provide solutions to problems which inhibit more extensive trade and investment between India and the United States;
- Provide the economic and commercial sub-commission of the Indo-US Joint Commission with recommendations to improve the overall economic and commercial relations between the two countries.

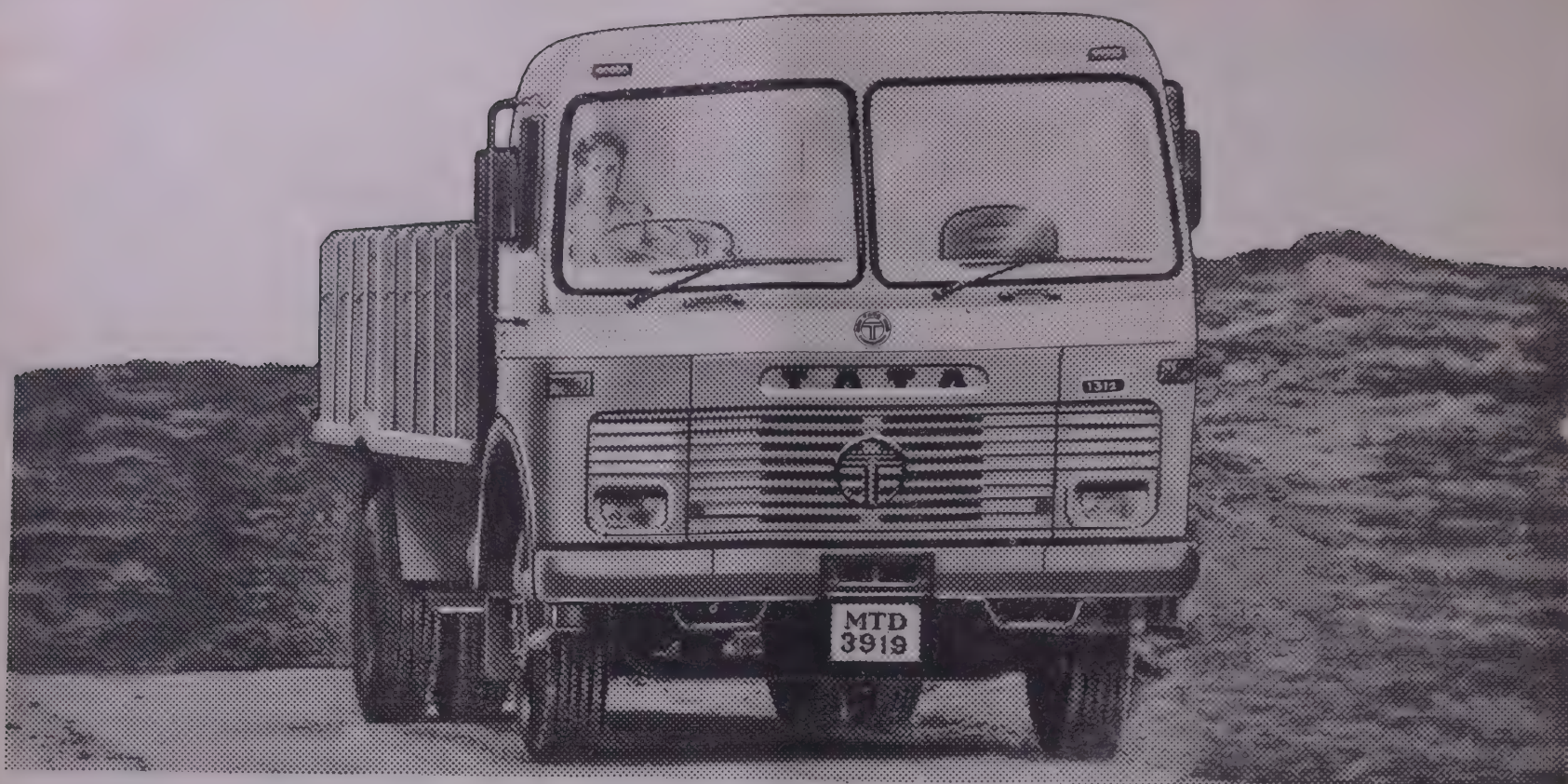
New focus

Although during the Joint Business Council meetings, the same ground is covered for discussions, there is a new focus each time, the reason being that developments keep taking place — both on economic and political fronts

The first meeting of the Indo-US JBC was held in New Delhi in February, 1976. A common theme of the discussions was the recognition regarding the vast scope for cooperation, on a mutually advantageous basis, in the field of investments and trade in India as well as in third countries. In order to facilitate and expand understanding of foreign investment regulations in India, the JBC agreed to form task forces to focus attention on this matter in detail.

As a follow-up of the first JBC meeting, executive committees were set up, on either side, to maintain close and regular contacts between the national secretariats in the periods intervening between the annual JBC meetings. Alongside the constitution of executive committees, certain specific sub-committees

Dr Bharat Ram is chairman, Indian section Indo-US Joint Business Council.



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were formed to deal with the prospects and problems in areas of trade, investment product sharing and cooperation in third countries.

At the time of the second JBC meeting held in the USA in February, 1977, some specific decisions taken were that:

- A specific study should be made on the opportunities for increased exports of Indian products to America under GSP scheme.
- The American section decided to make its own analysis about the changes in India's *FERA* for providing increased flexibility for foreign investment.

Expanding investment

During the third meeting held in New Delhi in February, 1978, the council members, while reviewing trade issues, discussed the GSP scheme of the United States at length. The US section presented a study identifying the increased export opportunities for Indian products under the GSP mechanism. The American side also presented a report noting the impediments to expanding business investment in India. In this report the policies adopted by Brazil, Mexico, South Korea and Indonesia to attract foreign investment were summarised. It was concluded that, in comparison with these countries, India's investment environment was relatively unattractive.

At the time of the fourth JBC which took place in June, 1979, in Washington, topics of technology transfer and Multi-lateral trade negotiations came in for exhaustive review.

In July, 1979 a seminar was organised on technology transfer under the auspices of the Fund for Multinational Management Education and FICCI. The seminar was a constructive beginning towards increased understanding and removal of obstacles in this complex area. Some of the constraints identified at the seminar in the process of technology transfer included insufficient local competition to stimulate local R & D, the policy of self-reliance in science and technology, brain drain of qualified Indian personnel and restrictive business practices and protectionism.

Recession

The fifth JBC meeting took place in New Delhi in February, 1980 at a time when the world situation had undergone many significant changes. Recession has

set in alongside of a build-up of inflationary pressures. This situation of stagflation was the direct result of the sharp hike in oil prices in mid-1979 which exercised a profound impact on the US economy. Changes in this regard tend to cast a reflection on bilateral relations. Both sides being aware of this new situation intensively engaged themselves in outlining areas in which greater co-operation between the two countries could be forged.

The US section task force on technology transfer presented its report in which it had identified some major constraints to technology transfer. These pertained to: (a) terms of transfer such as royalties, duration of contract fees for training, restrictions on export etc. (b) patents — life and protection (c) restrictions on volume of production.

In response to the suggestion made by the US side during the fifth meeting an Indian task force was set up on technology transfer. In the two sittings of this task force various aspects of technology transfer, particularly in respect of import of capital goods, and joint ventures were studied.

Technology transfer

During the sixth meeting of the JBC held in Washington in June, 1981, apart from discussing the trade issues, both sections of the task force on technology transfer presented their reports. The conclusions of the joint task force concluded that India's choice of technology must be flexible and serve the objectives of utilising domestic physical resources and indigenous talents, adopting foreign technology to domestic conditions and foreign technology to international markets. Besides, some of the recommendations made to the respective governments were entering into a Double Taxation Avoidance Agreement, reducing corporate tax rates in India, avoiding delays in Indian licence approval process, re-defining the base for computation of Indian royalties and allowing technology agreements for a longer period.

In a study, presented by the Indo-American Chamber of Commerce, the performance of some Indo-US joint ventures in India revealed that most of the projects were doing well, earning reasonable profits, remitting adequate dividends and were growing at a satisfactory rate.

At the suggestion of the Indian section, the Council established a joint third country cooperation task force to suggest means by which such collaboration could be expanded.

In February, 1982 the council held its seventh meeting in New Delhi. The active participation by India and the USA in the Cancun conference held in October last year helped create a better environment for a constructive dialogue. It was emphasised that India as the leading spokesman for the developing world and the US as the leading spokesman for the developed world had a major role to play in following up the Cancun summit. The delegation received a personal message from the Prime Minister of India, Mrs Indira Gandhi. To quote from her message 'Indo-US Joint Business Council has worked for greater understanding between the business communities of the two countries, which has become a focal agency for the development of trade and investment ties and for facilitating technology transfer and collaboration arrangements in third countries'. The meeting concentrated on assessing the changing investment climate in India, pursuing opportunities in overcoming barriers to freer flow of technology, removing trade irritants, bringing the private sectors more closely into US official development assistance efforts and promoting joint collaborations in third countries.

Need for foreign technology

Reviewing the Indian economy, the assessment of the Indian section was that while continued industrial growth was projected throughout the 1980s there was still need for foreign technology to help advance and up grade industrial development. The Indian side underlined the changes that had taken place in policy regarding foreign investment and technology. The US economic performance was not very positive; with US industry operating below capacity, major sectors remained depressed. Consumer demand was low and tight money supply was inhibiting industrial growth. The US section explained that current economic conditions suggested that US companies were not aggressively looking outward towards investment abroad. The Indian section agreed to consider utilising the services of Indo-American Chamber of Commerce in New York to serve as a resource centre for information and assistance to US firms.

The Indian side drew pointed attention to the inadequacies of the GSP indicating particularly that major export items like jute, leather manufactures including footwear, coir floor covering, glass and some engineering products etc. were outside the GSP. The US section agreed to follow up these concerns with the US Government which was committed to free and fair trade. The US section also alerted the Indian side to likely changes in US trade policy with emphasis being laid on negotiating to removing restrictive trade practices and investment services.

Royalties

While noting the recommendations of the joint task force on technology transfer, it was felt by the US side that although progress had been made in eliminating some of the barriers to free flow of technology further efforts were required to resolve the remaining problems, particularly in areas of intellectual property rights (Patents) royalty terms, taxation regarding lumpsum payments and sub-licensing requirements. The US section presented a report on Patents Act which inhibited the free flow of

relevant technology to India and growth of research and development in India.

Besides the JBC meeting, a meeting of the joint task force on Indo-US collaboration in third countries was also held at which each side presented its respective reports. The report of the task force of the Indian section brought out the areas of comparative advantage which the Indian companies enjoy in terms of detailed engineering, designing, project management, fabrication etc., availability of large pool of scientific, technical and managerial personnel for collaboration with US companies in overseas projects.

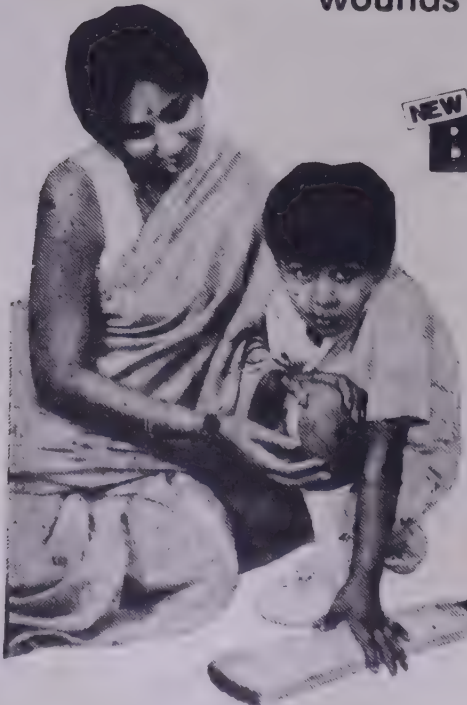
The US side in its report had identified some of the American companies which would be interested in entering into joint collaboration with Indian companies for projects in third countries. It was decided that joint meetings of the senior representatives of the Indian and US construction companies should be organised in important centres in the US as also in India for exchanging information about each other's capabilities and for identifying areas of collaboration between them for undertaking projects in third countries.

Useful forum

Thus, the Indo-US joint business council has proved itself to be a useful forum to strengthen bilateral ties. Since its inception it has sought to stimulate constructive dialogue on Indo-US commercial and economic issues among prominent businessmen of the two countries. The regular meetings over the last six years have developed mutual trust and confidence. The council has been conducive to a better understanding of the market opportunities by the interested businessmen, which has created greater possibilities for increased trade exchanges as well as other forms of cooperation.

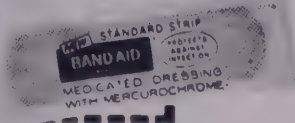
Besides the discussions during the JBC meetings have resulted in making positive recommendations on government policies for strengthening economic ties between the two countries. While looking into the future, I would say that the council has a growing and significant role to play in not only supplementing the endeavours made by the Governments of the two countries but also in providing valuable and constructive guidelines for mutual advantageous fields of economic cooperation.

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THE United States of America has been an important partner in India's progress, particularly in the field of industry. The two countries are the two largest democracies in the world, both believing in free elections, freedom of individual and of the press and in ensuring human dignity. It should also be noted that by using the modern technological advances and through the application of sophisticated technology, the USA has been able to achieve unbelievably high standards of living for most of its 250 million people and has also made substantial contributions to the welfare of mankind.

In contrast, India is still to get out of the woods. With a huge population of 700 million, but with an only 1/3 of the American geographical area, India has nearly 50 per cent of its people below the poverty line. Its per capita income is one of the lowest in the world. There is, however, no denying the fact that the Government through its planned efforts during the past 30 years has not only transformed the economic situation, particularly in the industrial sphere, but also has been embarking on measures to dispense social justice particularly for the weaker sections of the community.

In spite of these contrasts in the levels of living, particularly measured by the per capita income, India continues to move ahead as a leading industrialised nation in the world. Not only that it has been rated as the tenth largest industrial nation in the world, but its technical manpower is only next to that of the United States and the USSR. The diversification of industries from petroleum chemicals to fertilisers in a wide variety of chemical and engineering industries contribute to the ingenuity of the nation and its planners.

What is important to underline is that while the industrial growth in terms of percentage may not be very remarkable, India has to accept the enormous diversification and sophistication that the country has achieved in the course of its developmental programme during the past 30 years period.

Foreign collaboration

Foreign collaboration has been the most important and crucial instrument in industrial development. Apart from bringing the much needed technological know-how, the collaboration agreements

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Indo-US cooperation in industry

By RAUNAQ SINGH



Mr Raunaq Singh

quite often bring equity participation also, thereby augmenting the meagre availability of resources within the country. The United States of America to-day is the second largest investor in India. During the years 1959 to 1979, more than 5,700 joint foreign collaboration agreements have been approved by the Government of India of which about 20 per cent were with the USA. In fact, next to UK's 1,345 collaboration agreements, the USA ranks second in foreign collaboration agreements (1,096). In 1980, out of the 526 collaborations approved by the Government of India, 125 were from the USA, followed by the UK with 110.

The available statistics indicate that the total foreign investment of American companies is around \$ 350 million. It is, however, very insignificant (0.2 per cent) of the total US foreign investments worldwide. It may not be possible to quantify the effects of each of the collaborations, but the impact of the collaborations on technology transfer, managerial expertise, export promotion, import substitution, generation of employment, contribution to the exchequer have all been substantial.

Areas of US investment

The US investment in Indian industry, to a great extent, is concentrated in chemicals, petroleum and machinery which include agricultural equipment, engineering goods and metal products. In spite of lack of information and adequate communication between the two countries on the potentials for growth in India, there is a growing awareness of the fact that in India, the Indian situation is not bad and that foreign collaboration agreements once approved are honoured. With effective governments both in the Centre and the states, the infrastructure facilities and the availability of less expensive labour have all been the contributing factors in favour of larger American industrial units performing exceedingly well measured from any angle.

Recent evaluation

Recently, the Indo-American Chamber of Commerce conducted a representative study of 30 companies having a wide range of manufacturing activities and equity holdings. The key findings of the study could be summarised briefly. There has been appreciable growth in turnover of assets, equity capital and retained earnings by the 30 companies during the period 1975-1980. The combined sales of the companies increased at an average annual compound growth rate of 16 per cent in the five years, gross profits registered a growth rate of 15.2 per cent, dividends 19 per cent, retained profits 17.8 per cent and equity capital 28 per cent. Growth in profits after tax was higher at 14.1 per cent, as compared to the net profit after tax 12.9 per cent. Financial ratios such as net profit before tax to net worth, net profits after tax to net worth, dividends to net profit after tax, retained earnings to net profit after tax have all performed reasonably well.

All these reflect the improved industrial climate and investment opportunities in India. On an average, these companies have contributed \$ 2.5 million per year to the government exchequer by way of

corporate tax to which one has to add other indirect taxes, such as excise duties, sales tax, customs duty, octroi etc. On an average, the units covered have clearly indicated export-import balance. Eighty-nine per cent of the units also subscribed to the view that they have received full R&D support from the US collaborators. It should also be noted that most of the companies have underlined the importance of development of ancillary industries, a basic objective of the government's industrial policy and have sustained the large ancillary units through purchase of bought out items.

Need for larger inflow of resources

One, however, need not be complacent. India needs a much larger inflow of technology and larger participation to accelerate industrial growth. Though India has been one of the leading industrialised nations, it should be noted that some slippage in technology has occurred in recent periods and the gap between the technological sophistication in India and that of the developed countries has widened. The gap has to be bridged and there is need to remove the bottlenecks to facilitate large inflow of technology in India, particularly from the USA.

Import of technology

The government's policy on import of technology is clear and fairly liberal. The collaborations are allowed in areas of high technology not available in India; equity participation is welcome on selective basis and technical collaborations are preferred. Fully recognising the need for updating technology, the government has recently relaxed rules relating to the import of technology, particularly for import of drawings and designs and import of machinery under REP licences.

The task force on Indo-US Business Council on technology transfer has suggested a number of basic recommendations to improve larger inflow of technology into India from the US. These include:

- (a) A comprehensive double taxation agreement between the two countries.
- (b) A reduction in the corporate taxation in India.
- (c) Quicker disposal of applications for licence.
- (d) Flexibility in fixing royalty rates and duration of technological collaborations.

It should, however, be mentioned that the Government of India has relaxed considerably the Industrial Policy and many of the constraints faced by industry have been removed. The relaxation in the Industrial Policy include regularisation of excess capacity in selected industries, provision for automatic growth, keeping export production outside the definition of 'dominance', incentives for establishment of 100 per cent export oriented units and the recent modifications to the MRTP Act. The government have also been flexible recently in so far as the royalty rates and duration of technology agreements are concerned. It is hoped that these policy changes effected in India are brought to the notice of American investors. The Indo-US Joint Business Council and the Indo-American Chamber of Commerce should give wide publicity to these changes. A recent study of the Indo-American Chamber of Commerce has very clearly indicated that the Indo-American joint ventures have done extremely well in India and with the liberalised policies, they could do better.

Export-oriented units

Special mention should be made of

the government policy to establish 100 per cent export-oriented units in India. A larger number of incentives are given for these units, and as long as they remain 100 per cent export oriented units, no stipulation on foreign equity is being made. It is generally known that collaborations from the USA and Japan encourage exports. In fact, a good part of the export performance of South Korea could be attributed to the predominance of US and Japan in their foreign collaborations. It should be our endeavour to get as many American collaborations as possible for setting up 100 per cent export oriented units. The government has already indicated a list of units where 100 per cent export-oriented units could be established and this list should be widely publicised.

I have no doubt that with the pragmatic and liberal policies that are being pursued by the government for the past two years and with the active efforts of the Indo-American Chamber of Commerce and the Indo-US Joint Business Council, India could at least try to achieve one per cent of the American investment abroad in the eighties, as compared to just 0.2 per cent at present.

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On the economic situation in India, there are optimistic signs. The GNP increased by over 4.5 per cent in 1981-82 and this, on top of a 7.5 per cent growth in the previous year, was remarkable indeed. Agricultural production recorded an excellent crop of 134 million tonnes in 1981-82. Industrial production increased by over 8 per cent. There has been perceptible improvements in the availability of infrastructure facilities such as coal, power and rail transport. Inflation has been controlled. Thus, the economy has stabilised and is poised for accelerated development.

Indo-US trade

Industrial co-operation is closely linked with trade. During the past few years, Indo-American trade had been adverse to India. Though 1975-76 was an exceptional year, when the trade gap was nearly Rs 7,650 million, there is no denying the fact that except for one year, 1978-79, the trade has been adverse during the past seven to eight years. In 1980-81, the exports from India to US accounted for Rs 8,522 million, compared to imports into India from US of Rs 15,109 million, thereby revealing a trade deficit of Rs 6,587 million. While the USA accounts for 12.7 per cent of India's total exports, Indian exports accounted for 0.5 per cent of the total US imports. In fact, since 1951, when imports from India accounted for 2.65 per cent of the total US imports, there has been a steady decline in the share of India.

The main items of exports to the USA are coffee, tea, jute goods, chemicals, marine products, engineering goods, diamonds, gem and jewellery. Imports from the USA are vegetable oils, fertilisers, chemicals and machinery. In the sixties, one may remember, the USA was also the prime exporter of foodgrains to India. An analysis of the trade figures between India and USA reveal that the latter's exports to India have gone up much faster than its imports from India. The trade deficit continues to widen. A number of reasons could be attributed to this, but I feel that the country should make more efforts to improve its image and performance in that country, conscious of quality and competition.

Industrial restructuring

Trade must increase between the developed and developing countries and also between the two countries like India and the USA. Speaking at a recent ICC

conference, Sir Arthur Lewis said. "One may presume that over the next ten years, the attitude of the industrial countries to LDC trade in manufactures will depend, to a large extent, on whether the world economy is prosperous or depressed. If world trade continues to grow slowly, protectionism will flourish. Yet if we could get back to an 8 per cent annual growth of world trade, it might be easier to settle some of the problems of international trade now in dispute between rich and poor countries, especially freer trade, a return to non-discrimination, the location of processing facilities, and the terms of trade".

I personally feel that the best way to improve the rate of growth of manufacture exports from the developing countries to the developed countries is through the process of industrial restructuring.

The developed countries must identify in their countries the areas of production which are labour-intensive. They should transfer these industries to the developing countries and move into higher planes of technology. The UNCTAD is doing a lot of spade work on the subject. The time has come when the Indo-US Joint Business Council and the Indo-American Chamber of Commerce should consider this issue and at least identify in the developed countries, particularly the US, the areas and particular products that could be transferred and re-structured in developing countries, particularly India. This would provide a long term solution to increase the share of manufactured exports from developing to developed countries.

Third country co-operation

I would like to suggest that the time has also come when we should take note of the enormous potentials available for the third country co-operation between India and the USA. A number of examples have been cited in this context, but much remains to be done.

Mr F. Wilson, presenting a report on third country co-operation to the Indo-US Joint Business Council has analysed clearly that both in India and West Asia, there is a positive interest in Indo-US collaborations. The Joint Business Council must follow this up and approach the American firms to take into account India's potentialities in third country co-operation. The Indian industries can supply equipment as well as the infrastructure material in addition to providing well-qualified and trained supervisory personnel for execution of projects in the Middle East.

Summing up

I am confident that there is a vast scope for co-operation in industry between the two countries and that with the liberalised policies that the Government of India has brought out, larger number of collaboration agreements between the two countries will be forthcoming for transfer of technology and through that for the establishment of a large number of industrial units in the country. It is now for the industry to act and identify such areas of co-operation.

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OURS is a growing, expanding relationship. Although India and the United States may be half a globe apart, relations between the private sectors of our countries have produced trade and investment ties resulting in a strong and lasting collaboration among our great peoples", so said President Ronald Reagan, greeting the delegates of the Indo-US Joint Business Council in Washington D.C. in June, 1981. These words have a special significance to India in recent years when Indo-American relations in general have become the subject of discussion, debate and sometimes controversy.

The meeting between the Indian Prime Minister, Mrs Indira Gandhi, and the US President held last year in Cancun was the first between the two leaders after they assumed their offices in 1980. This is to be followed by a second meeting scheduled in July 1982 when the Indian Prime Minister visits the USA for discussion on a wider spectrum of Indo-US bilateral relations.

The world attention is now focussed on this meeting which should strengthen the relations between the two countries and open the doors for potential American investors in India.

Growing relations

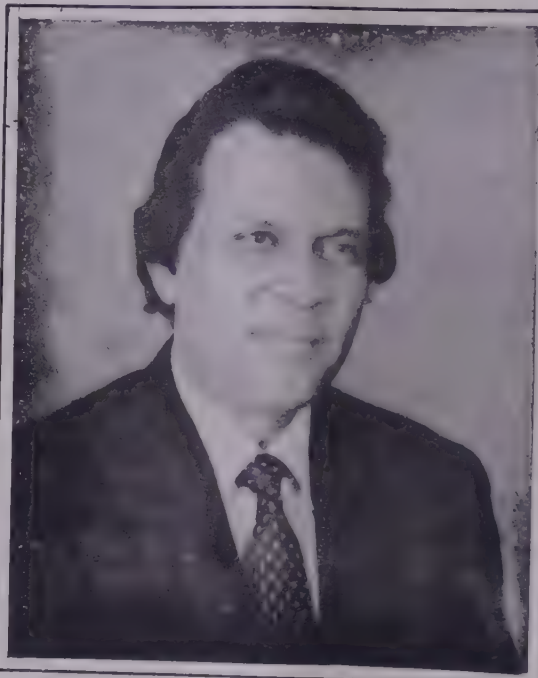
Since India's independence 35 years ago, the Indo-US business relations have been growing in spite of periods of lulls. The Indian entrepreneurs successfully collaborated with a number of American companies to enhance their manufacturing capabilities on the one hand, while the US companies with their capital, sophisticated technology and entrepreneurship recognised the need for joining hands with the Indian industry, on the other. This is manifested by a large number of successful Indo-US joint ventures in various parts of India continuously contributing to the country's economy and also striving for expansion in the years ahead.

Foreign collaborations

The foreign investment policy of the Indian government is based on the theme evolved by India's first Prime Minister, Mr Jawaharlal Nehru, when he made a statement to the Indian Parliament in April 1949 wherein he stated: "The stress on the need to regulate in the national interest, the scope and the manner of

American investments in India

By A. MAZUMDAR



Mr A. Mazumdar

foreign capital arose from past association of foreign capital and control with foreign domination of the economy of the country. But circumstances today are quite different. The object of our regulation should, therefore, be the utilisation of foreign capital in a manner most advantageous to the country. Indian capital needs to be supplemented by foreign capital, not only because our national savings will not be enough for the rapid development of the country on the scale we wish, but also because, in many cases, scientific, technical and industrial knowledge and capital equipment can best be secured, along with foreign capital."

It has been recognised by the Government of India that in an era of increasing inter-dependence of nations when the world business is growing, foreign capital, particularly through sophisticated technology transfer serves as a lubricant to move the wheels of modern industry. However the policy

on foreign investment has been adopted in such a way that the growth of the indigenous manufacturers is not hampered.

Over the years, many foreign investors have been attracted to collaborate with Indian businessmen. In a span of 25 years (1957-1981), the Indian government has approved 6,621 foreign collaborations in India, 20 per cent of which are with the United States. During the last two years, the US investment occupies a unique position in India's industrial and commercial development and has figured on the top of the list for highest number of collaboration agreements signed and transfer of technology effected. During 1980 and 1981, of the 915 business collaborations approved by the Indian government, the United States topped the list with 210 or 23 per cent, followed by the United Kingdom with 189 or 20.7 per cent.

US investments

The US business investment in India soon after independence in 1948 was \$ 3 million which by mid-1981 had zoomed to an estimated \$ 500 million reflecting an average annual compound growth rate of about 17 per cent covering over three decades. Table I on US investments in India over the last six years indicates a period of lull during 1976-78 after which it has steadily risen. In spite of this uptrend, it must be recognised that of the total worldwide investment of the USA, India's share is a poor 0.3 per cent. This nevertheless indicates a substantial ground to be covered, business opportunities to be exploited and challenges to be met.

Table 1: US Investments in India
(in \$ million)

Year	Amount	Growth (%)
1975	367	—
1976	363	-1
1977	337	-7
1978	328	-3
1979	341	+4
1980	396	+14
1981 (Jan-June)	500*	

Source: US Chamber of Commerce

*Estimate of Business Week

The majority of the US investments in India is in the manufacturing sector covering chemical and allied products, machinery and transport, and other manufacturing industries. Although no official data about the US investments industry-

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ise are available, some trend is visible from the planned capital expenditure in India by the US majority owned foreign affiliates. The US companies have planned to spend \$ 34 million in 1982, up 70 per cent over 1981 and which is contrasted to an increase of only 13.9 per cent in the Asian region and only 11.4 per cent worldwide. Much of the US capital expenditure planned in India is expected to result in chemical plant expansion.

It may be of interest to note that only about one-fourth of Indo-US collaborations are involved in equity participation while the majority is involved in licensing. Many American companies are discovering that licensing in India can open many avenues besides royalty. For example, the licensing partnership can serve as an avenue to gain an export market for the American collaborator, since components not produced locally in India must be imported. American companies are also finding that collaborations with Indian companies open up doors in neighbouring Asian countries — particularly with a marketing base in India — not only for the products covered under collaboration but also for other lines manufactured by the US parent company.

The most important thing for a prospective American investor is to choose the right Indian partner, one who fully understands the requirements of the US parent company and who is fully familiar with existing rules and regulations in India. If the partners and the technology are right, the rewards can be great.

It may be of interest to note the view of the India Desk Officer of the US Department of Commerce who recently commented: "India is entering a new phase. While it still faces some of the constraints that many developing countries experience, it is becoming a more hospitable and more profitable market in which to do business. For US companies which have never considered India, this may be the time to do so. For those firms which have already considered India and said 'no' perhaps now is the time to take a second look".

Partners in progress

The functioning of some 200 Indo-US joint ventures in India is symbolic of a success in international business. The Indo-American Chamber of Commerce (IACC), an organisation dedicated to the cause of promoting business interests of India and the United States, had recently undertaken a study

on the performance of Indo-US joint venture which revealed interesting results. This study covered 34 representative Indo-US joint ventures during a span of five years from 1975-76 to 1980-81 which showed appreciable growth in profits, sales revenues, assets, dividends, equity capital and retained earnings by these companies in India. It revealed that during the quinquennium under consideration, the combined sales of these companies grew at an average annual compound rate of 17.9 per cent, profit before tax rose at the rate of 15.6 per cent, net profit after tax at 20.3 per cent, dividends at 14.8 per cent and retained earnings by 22.8 per cent. During the same period equity capital grew at an average annual compound rate of 21.5 per cent.

Financial ratios such as PBT (Profit Before Tax): Net Worth, NPAT (Net Profit After Tax): Net Worth, Dividend: NPAT, Retained Earnings: NPAT fared reasonably well. This reflects the improved industrial climate in India, the market and the opportunities for investment which have been unfolding and expanding over the years.

Scope for further collaborations

The IACC study has served as an eye-opener to many potential American businessmen in India and the US. The IACC sponsored a 12-member industrial delegation to the USA in May 1982, which I had the privilege to lead, to project the correct image of India among American businessmen. It visited Boston, Hartford, Albany, Rochester, Buffalo, Cleveland, Columbus, Louisville, Trenton, and Washington D.C. among others, during its 18-day tour, and focussed on medium sized companies in these cities. This effort apparently has also generated further interest among potential US investors and a return delegation by US businessmen under the aegis of the Overseas Private Investment Corporation (OPIC) is planned during February 1983.

The Indian government has of late announced certain modification and liberalisation in its industrial policy which should attract investors. The inbuilt export thrust of foreign companies with their technological experience has been increasingly realised and this has been manifested in an important announcement made this April by the Government of India which opened five new areas to the foreign investors, so far unavailable to them. These are: (1) High technology

reproduction and multiplication equipment; (2) Carbon and carbon products; (3) Pre-tensioned high pressure RCC pipes; (4) Rubber machinery and (5) Printing machinery.

The Indian market offers promising opportunities for American companies in the fields of electronics, oil exploration, refining equipment, power generation, shipbuilding, food processing, packaging and assembly line equipment for the auto industry. There is also a great scope for joint ventures between India and the US for profitable business ventures in third countries.

The Indo-US Joint Business Council, a platform of leading Indian and American businessmen, has met periodically in the capitals of the two countries on six occasions continuously. They deliberate on issues, problems and prospects for American investments in India and for two-way Indo-US business and trade opportunities. At its last meeting in early 1982 in Delhi, the Joint Task Force on Technology Transfer was assigned to make an annual assessment of collaborations in order to recommend further steps necessary to attract more US businessmen to collaborate with Indian enterprises. At the Delhi meeting this year, Prime Minister Indira Gandhi, in a message to the Council, invited US high technology firms to establish themselves in India.

Largest democracies

The need for the two largest democracies in the world, to come closely, was amply justified by the former US Ambassador to India, Dr Daniel P. Moynihan, who while making a hard headed assessment of mutual self interest observed: "There are not many practicing democracies in the world today. Those that are, have a very substantial interest in seeing others should continue. There is little pleasure and less prospect, in being the last of a disappearing species — whether biological or constitutional, and in that very important sense, we need each other."

Finally, let us hope and trust that the two largest democracies in the world will be able to work together and resolve binational issues for mutual benefit and cooperate in solving international problems for peace and prosperity for all, for the freedom of man. Concluding, I do fervently hope that the visit of our Prime Minister to the US would strengthen the ties between our two great countries for mutual benefit.

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American banking in India



Mr J. O. Sims

MR John Sims, Bombay-based Regional Vice-President for South Asia of Bank of America, believes that business opportunities for foreign banks in India are reasonably good though they face major restrictions. In particular, he cited the restrictive branch licensing policies pursued by the government. His bank, he said in an interview, would very much like to extend its business in India, if it is permitted. Excerpts:

Commerce *What is the present and anticipated climate for foreign banks in the Indian environment (in terms of business opportunities)?*

Sims Business opportunities for banks with branch operations in India as well as those with representative offices here or with no offices at all are reasonably good. Naturally, the banks with a physical presence in India and particularly those with branch operations enjoy greater and more varied opportunities for participating in India's economic develop-

ment. Recent government indications of a substantial relaxation of licensing and offshore borrowing restrictions and strict adherence to FERA regulation strictures may provide even greater opportunities in future.

Q *In what way is the presence of American banks beneficial to the development of the Indian economy?*

A Given the fact that the US is India's largest trading partner, the presence of American banks in India and Indian banks in the US is highly beneficial to both countries. Apart from local financing of public and private sector enterprises, most of the US banks located in India are truly global banks. As a global institution, a US bank is able to support India's trade and investment in almost every corner of the world as well as provide foreign currency investment for government approved projects within India. Generally speaking, the presence of US banks in almost any country provides assistance and incentives for the more rapid development of the host country's banking industry.

Q *What restrictions do US banks face in doing business in India?*

A Major restrictions involve restrictive branch licensing policies, possible restrictions on certain public sector undertakings in their relations with foreign banks, and strictures on certain types of funds for deposit with foreign banks.

Q *Would American banks like to expand their presence in this country? If so, what are the prospects?*

A While I cannot speak for other American banks, our bank would very much like to expand its presence in India. However, we feel the prospects are not encouraging in view of present restrictive branch licensing policies.

Q *US banks appear to concentrate more on the "wholesale" type of banking in India. Are there any plans to do "retail" banking to any significant degree?*

A Given the fact that most US banks have only one branch in each of the large urban centres, concentration on the "wholesale" type of banking becomes almost unavoidable. Should more liberal branching policies be forthcoming, I am sure that all US banks would like to expand in the lucrative retail sector.

Q *How do American banks view Indian banks, particularly the larger nationalised ones?*

A Again, while I cannot speak for other US banks, in my view, the Indian banking industry's performance has been outstanding. With limited automation and faced with mandatory social responsibilities, coupled with the huge branch systems they must maintain, their performance can only be admired. At the same time, their expansion into overseas markets has greatly enhanced their international capabilities and the assistance they are able to provide to Indian and foreign clients.

Q *Are multinational corporations (and perhaps large Indian business houses) the only type of entities with which US banks would like to do business?*

A No. I feel that most US banks would like to penetrate the entire market. International trade is always a prime target, and multinational corporations and large Indian business houses are not always the forerunners in this market.

Q *How sensitive to prevailing Indo-US relationships is American banks in India?*

A In my long experience as an international banker, sensitive political relationships have had little or no impact on the business and banking environment.

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INDIAN and the United States economies are complementary and can become mutually supportive. India is short of capital and sophisticated technologies. The US has both of these but is deficient in skilled and inexpensive manpower and hence cannot be competitive in non-sophisticated products. India has the large market which the US needs. India can also provide easy access to many of the Third World and the socialist countries.

In the past, many opportunities have been missed by both the countries due to certain factors inhibiting the successful finalisation of many collaboration agreements. Some of these factors are:

Factors in India:

- 1 The inflexibility, complexity and delays of the Indian administrative procedures.
- 2 Failure of the authorities to appreciate the time value of technology offered.

- 2 Excessive emphasis on American control on management of Indo-US ventures.
- 3 Absence of strong US official support to economic relations due to political differences with the Government of India.
- 4 Desire for quick returns rather than steady and long term returns.
- 5 Insufficient appreciation of the Government of India's industrial development policies and impatience with procedural delays.
- 6 Insufficient appreciation of India's industrial capabilities and the availability of technical and managerial personnel in India.

Complex Industries

In spite of difficulties, India has at present, a large number of Indo-US joint industrial enterprises, which occupy a unique position in India's industrial and commercial development. Many leading

Between 1957 and 1979, the total number of US joint ventures in India stood at 1,096 which comes to 19 per cent of total number of foreign agreements approved by the Government of India. But the fact is that in 1980, the US was the leading country — ahead of both Germany and the UK — in the number of approved technological agreements (125), which is 23.76 per cent of the total number approved for all countries. Today, the United States is the second largest investor in India.

Performance

Indo-US joint ventures have proved beneficial not only to the Indian economy but also to the US investors. The Indo-American Chamber of Commerce undertook a study of a number of such ventures based on both primary and secondary data. The 30 companies studied had recorded appreciable growth in profits (20.3%), assets (17%), dividends (14.8%), equity capital (21.5%) and retained earnings (22.8%) during the period 1975-1980.

This reflects, in part, the improved industrial climate, the market potential and the opportunities for investment which have been unfolding over the years. The fact that such results have been possible strengthens the view that, despite the drawbacks on account of delays due to rules, regulations and bureaucratic procedures, the investment climate in India remains good.

Promotion

India is a vast market with great potential and it is myopic to operate for short term gains alone. The Indian economy has an interest in attracting a broad spectrum of US technology. There is a potentially large number of US industrial firms capable of supplying technology, who would be interested in the business opportunity. Indo-US economic and technical co-operation can be enhanced through the implementation of the following:

- 1 Developing the knowledge and the capability to comply with Government of India laws, regulations and approval procedures.
- 2 Appointing effective intermediaries (technical and management consultants) to identify suitable partners, facilitate agreements and monitor payments.
- 3 Offering significant lump-sum payment for technical know-how wherever necessary.

Building bridges of technical cooperation

By K.K. ANAND

- 3 Excessive demands on US firms to adjust the technology transfer package.
- 4 Restrictions on the import of critical equipment and materials.
- 5 Restrictions on use of trademark and export rights related to licensed products.
- 6 The excessive taxation of earnings from the sale of technology and delays in payments for negotiated amounts.
- 7 The limitation on payments for training and other critical technical support services.
- 8 The limitations on the life of patents and related payments.

Factors in the US:

- 1 The insufficient awareness of many American companies about the economic opportunities that India offers.

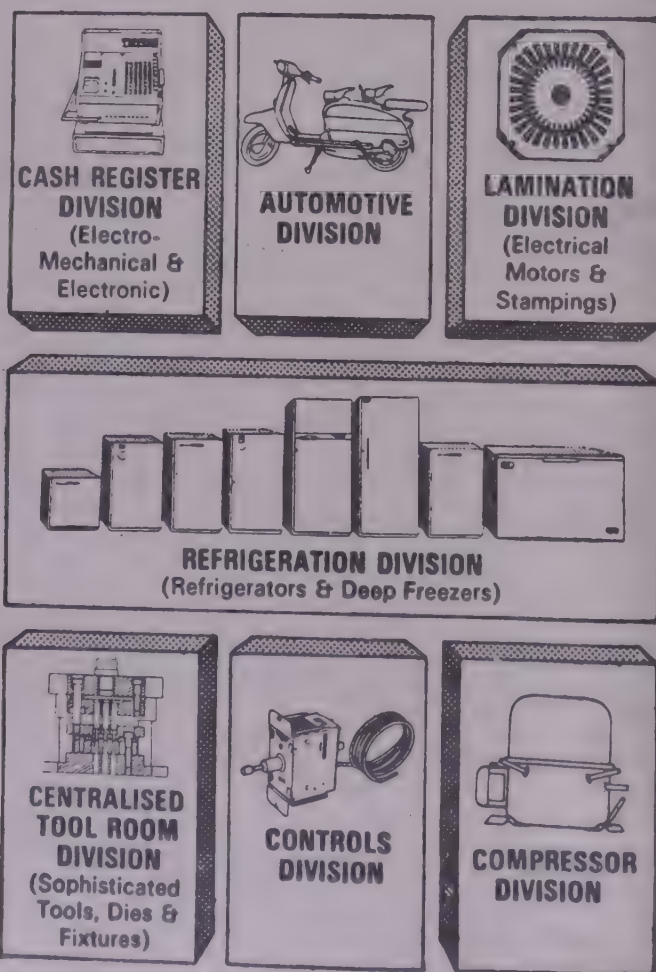
American companies are collaborating with Indian counterparts to set up a wide spectrum of technologically complex industries, both in the public and private sectors. US private investment is currently estimated at \$ 500 million. This figure does not convey the full scope of the contribution made to India's overall development. Some of the outstanding benefits to the Indian economy have been in:

- a) Technology transfers.
- b) Training of managers in sophisticated marketing techniques.
- c) Import substitution.
- d) Enlargement of export opportunities.
- e) Generation of both direct and indirect employment.
- f) Contribution to state revenues.
- g) The provision of R&D facilities within the companies to keep abreast with new technological developments in a rapidly changing world.
- h) Professionalisation of management.

Dr K.K. Anand is Chief of K.K. Anand Consultants

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- 4 Prevailing upon the US firms to accept a modest payment on technology transfer, initially, for better long term gains.

Future

It is both erroneous and self-defeating to characterise the Indian economy as inhospitable. Although it may be difficult to negotiate agreements with the Indian bureaucracy, once decisions are made they honour their commitments.

The evolving Indian economy is an attractive place for viable technical collaboration agreements in view of India's advancing stage of industrial development, expanding availability of technical and managerial cadres and increasingly cosmopolitan view of the realities of a world economy. The US firms stand a better chance of success where they offer technologies that are compatible with the development goals of India. This will help achieve easy and prompt Government of India approval.

US companies below the Fortune 1000 level, who don't have extensive overseas experience, require help in assessing comparative cost advantages, reliability of potential partner and in negotiations, obtaining governmental clearances, authorisation etc. In such cases, the role of an intermediary becomes indispensable. Such intermediaries, so far, have been generally with legal or financial expertise. There is a need for involvement of intermediaries with techno-managerial expertise. This intermediary 'link' can prove a great facilitator to the consummation of collaboration agreements.

There is increasingly better appreciation by both the governments of the desirability of promoting further economic co-operation. The Government of India is liberalising many of its policies regarding import of technology imports and streamlining administrative procedures. The US government too is supporting initiatives by its companies for investments in India and collaboration with Indian companies.

In the forthcoming meeting between the US President and the Indian Prime Minister, they are likely to formally and publicly declare support for more active and broader Indo-US economic co-operation. The world's two largest democracies can give a new direction to human history by doing so. We can look forward with optimism to the growth of Indo-US technical and industrial collaborations in the future.

An adventure in mutual understanding

By ARUN C. VAKIL

BEYOND the realms of politics and economics, the world today affords opportunities for freer and fuller intellectual and scientific exchanges. Freedom of ideas and the promotion of cultural and artistic interplay, in a world where the mind is without fear, can create an environment where tolerance and understanding can flourish. Beyond the traditional ideas of statecraft, Indians and Americans recognise an obligation to themselves and to others that ends can never justify evil means. Nations, like individuals, are morally responsible for their actions."

These sentences of the Delhi Declaration made at the time of the visit of the former US President Jimmy Carter, to India in 1978 are symbolic of the willingness of the world's two largest democracies in mutual understanding in spheres other than those that fall under political and economic relationships.

The words inscribed on the statue of Liberty in New York harbour "Give me your tired, your poor, your huddled masses yearning to breathe free" signify much beyond those words a powerful magnetic force for people from all over the world towards America. In the mid 50's and 60's, the Indians moved to the US to acquire knowledge from the higher model of learning. A majority of this, came from the middle and lower middle classes but were adequately armed with college degrees and the necessary familiarity with the English language. The English language facilitated the development of intellectual relationship between Indians and Americans. Students, scholars and professionals from India came to the US in greater number than to any other foreign countries, thus weaving a network of personal relationship between the US and almost every part of India. The educated cream of Indian society which goes to the American ivory towers is able not only to adapt to conditions in the land of opportunity but contribute significantly to the professional, scientific and technological fields of development in the US. Though it constitutes a brain

drain from India it can also be looked upon as a brain-bank abroad in which India is investing for the future.

There are many Indians who have returned to India after the American education and work experience. A number of US returnees who have enriched themselves from American higher education have formed a group called the American Alumni Association



Mr Arun C. Vakil

in Bombay which endeavours to keep in touch with American education, culture and atmospherics. It plans to institute a scholarship in the form of an annual travel grant to a deserving Indian for higher studies in the US.

Cultural fabric

When America is regarded as a materialistic society, it really is a fact which is too apparent to be completely true. There is a strong current of spiritual idealism flowing beneath the surface soil of the American mind. According to Rabindranath Tagore, "Spiritual ends of life are pursued with a keenness in America not found anywhere else in the modern world, and the production of wealth instead of hampering her inner vision has emancipated her imagination of a creative democracy, which will offer true freedom to the human spirit. One cannot but feel that this spiritual adventure of the American civilisation

will find over-renewing avenues of self-expression, that she will exploit her material resources for the well being of humanity, conquering disease and spreading scientific habits of living, and offer by her directive control of scientific knowledge, benefits which will spread far beyond her own geographical limits".

The above observations made by Tagore have been shared by many Indians who have lived long enough in America to experience this cultural undercurrent of the American society. Although the US is regarded as the land of the immigrants, it is now 206 years old with its own 'specialised culture', which is flexible enough to adapt to new ideas, new visions and new thinking, keeping pace with new technology and new scientific developments. America is regarded as a society where nothing is constant as everything is changing all the time. The only thing that is constant in America is the 'constant change' in its growth process. The ethos of Indian culture represented by the *Geeta* is manifested in the formation of the International Society for Krishna Consciousness (ISKCON). The ISKCON group which is growing worldwide regards it a great privilege to be born in India. There are many Americans who undertake spiritualism in the form of transcendental meditation at the Vajreshwari Ashram of Swami Muktanand in Bombay suburb and there are many who have had exposure to the Indian culture when they worked as Peace Corps volunteers under the administration of President Kennedy.

Besides Americans associated with some 200-odd Indo-US joint venture companies, there are a few Americans who are involved in art, education and culture in India. A missionary school directed by an American in Kodaikanal is an example of a successful Indo-US cultural exchange through education. The educational and service organisations like the US Education Foundation in India (USEFI) and Rotary International periodically exchange students, scholars and teachers to have mutual exposure

Arun C. Vakil is President of American Alumni Association

to the cultural aspects of the two countries. In an effort for greater understanding of India's problems and aspirations, the Americans should complete the voyage to India begun by Columbus. The things that have external values belong to all humanity and at all times and this experience can never be better achieved than by visiting India.

Indians in America

India's relationship with America started some 80 years ago when scores of Sikhs from Punjab pulled up stakes because of severe drought and immigrated to the North American continent. By 1910, more than 5,000 Sikhs had settled throughout California, some building railroads for Western Pacific, some working in lumber mills but a sizeable majority found themselves being sought out for their skilful handling of orchard and agricultural work. By 1918, over 18,000 acres of California's rice lands alone were farmed by Sikhs. Today more than three-fourths of a century later, the trials, tribulations and successes of those early immigrants have led to the development of a strong foundation of the Indian community in the US. Over 500,000 Indians are believed to be in the US, currently predominated by immigrants from the states of Gujarat, Punjab and Kerala. According to a senior official of the New York City government, "During the evening shifts in the city hospitals, the official language changes from English to Malayalam", a reflection of the New York's nursing profession dominated by Kerala nurses.

Although in relation to other countries, the Indians in America form a small number, it is making an impact on the American life far beyond the numerical strength of the Indian community. Whether it is a university or a hospital, the Indians are in the forefront of the faculty or the medical facilities. In the American universities, in almost every faculty of significance, there is an Indian either as the head of the department or occupying a prominent position. In terms of earnings, Indians are among the top 7 per cent of the income-earners of the US. Thus Indian population in the USA is not much of manual workers but it is of intellectuals — men who work with their minds. The median income of an average Indian is \$ 25,000 (Rs 2 lakhs) a year or almost twice the national median income. The total assets belonging to the Indians including real estate holdings, saving accounts and business investments

are estimated at \$ 12 billion (Rs 1,15,000 crores) making them in comparative terms, the second affluent ethnic community after the Jews.

The Indian community in various states has formed organised groups to maintain and propagate the cultural values imbibed by birth. On every weekend the Indian programmes play the latest film music over the radio for listeners in over a dozen cities. Film distributors have made fortunes by getting films and videos from Bombay movie world and exhibiting them in special theatres in all the major American cities. Get-togethers and dance festivals commemorate the *Dassera*, *Diwali* and Indian Independence Day festivals in American cities: The mayors of cities with large Indian population, regularly declare 'India Day' and 'India Week'. Newspapers catering especially to the Indians in America number over a dozen, headed by *India West* in California and *India Abroad* in New York. Vedanta societies and Hindu temples are now proliferating in American cities. The Golden Temple of *ISKCON* in West Virginia has now become a monument for a visitor. The most elaborate one is in Pittsburg — a replica of the original one in Hyderabad. According to one estimate, Indians have invested more than \$ 25 million (Rs 20 crores) in temples by way of establishing lasting institutions of Indianhood for US-born Indian children.

Financial power

American politicians have recognised the potential force represented by Indians. The financial power wielded by Indians has made New York city politicians woo the Indian community on special occasions. Recently the New York Mayor led a parade on New York's Park Avenue to celebrate India's Republic Day. An Indian sits on New York Mayor's ethnic advisory council. Indians have been elected into city councils in Connecticut and Pennsylvania. California Governor, Jerry Brown who is running for the Senate is continuously mingling with the Indian community for support in his bid for the high post.

According to the editor of *New York Today*, the Indian community is an extraordinarily creative one. They have reached the American shores with a 3,000 year old culture and are contributing a tremendous amount to American values. Indians have brought gentleness and a reverence of scholars.

Apart from human beings, among cities of India and the US, the relationship is growing. At least six Indian cities have got their counterparts as sister cities in the US. Ahmedabad, Bangalore, Bombay, Mercara, Salem, Simla are the Indian cities which have sister cities in the US. The correspondence and co-relationship between these sister-cities is fairly close and the bonds of friendship are very clear and visible if one were to visit these sister cities.

American sentiments

According to a survey conducted in 1978, most Americans feel moderately positive about India. The National Opinion Research Centre conducted a survey and asked a national cross-section of American citizens to rate India on a scale of plus 5 and minus 5 in terms of how much they liked it. About 75 per cent of all respondents placed India in the plus category. On the basis of previous similar research, this ranking places India at approximately the same level of esteem as Japan and Brazil, just below Israel, well below England and Canada and well above China, Russia and Egypt. However, the positive feelings expressed for India are not very intense. Only 12 per cent of all respondents placed India at the highest end of the rating scale, that is giving it a score of either plus four or plus five. This compares with 28 per cent for Israel and 38 and 61 per cent, respectively for Canada and England. Although the above survey is three years old, Indo-US relationship can be best described in the words of the present Indian Ambassador to the US, Mr K.R. Narayanan, as 'Half full of cold, half full of fire'. The task of statesmanship is to mix the hot and cold and to generate a health-giving even temperature in the Indo-US relationship that is neither frigid nor feverish.

The relationship between two nations like the relationship between two individuals cannot be and should not be based on material considerations. How long would a marriage of two individuals or the friendship of two individuals last if each asked the other 'how much in material worth are you willing to give me?'

There is something deeper to the relationship between two individuals or between two nations, something deeper, something more significant which transcends material consideration and it is this deeper, greater significance which must be attached to the relationship between these two great nations.

TRADER and travel links between the two countries have existed for many years. According to recent statistics, the number of Indians travelling to the United States is possibly very near to the number of Americans travelling to India. American nationals visiting India constitute approximately 10 per cent of the total tourist traffic to India. American nationals are avid travellers and it would be pertinent to examine ways and means of developing this market.

Tourism is a valuable foreign exchange earner, provider of direct and indirect employment at all levels and helps to bring mankind together thus providing a better understanding. Tourism in India earned over Rs 700 crores of foreign exchange last year and is ranked the third largest earner of foreign exchange for the country. Considering that tourism does not export any valuable raw material and does not require any appreciable foreign exchange for import of plant and machinery, it is perhaps the largest net-foreign exchange earner.

While considerable efforts have been made during the last couple of years to encourage this industry in India, it is still not recognised as an export industry thus denying it the fiscal and other benefits available to other export industries. Many ministries and officials still look at tourism sceptically, perhaps due to a lack of understanding of the mechanics of this industry or perhaps because the industry itself has not been able to project itself effectively. Be as it may, the industry has some very dedicated people who continue to do their bit in promoting this industry and providing the resultant benefits.

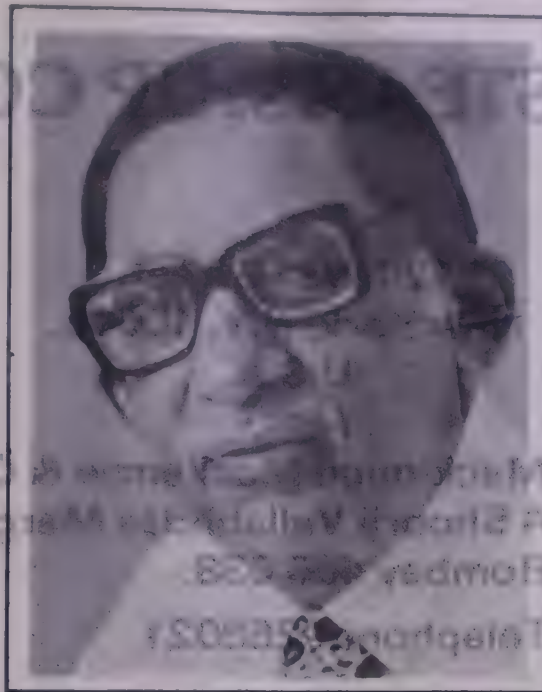
India has attractions for tourists of all castes and creeds, age, interests and cultures. In spite of this during 1981 we had a little over 0.8 million tourists, a small fraction of the world tourism movement. There are several impediments and it would be in our interest to overcome them as fast as is possible.

Air transportation

For the size of our country transportation by air is essential. The capacity on Indian airlines has been increased and more cities are now linked by Air Bus and Boeing 737 aircraft. It is also creditable that some of the smaller towns are

Promoting Indo-US tourism

By K.B. SARWAL



Mr K.B. Sarwal

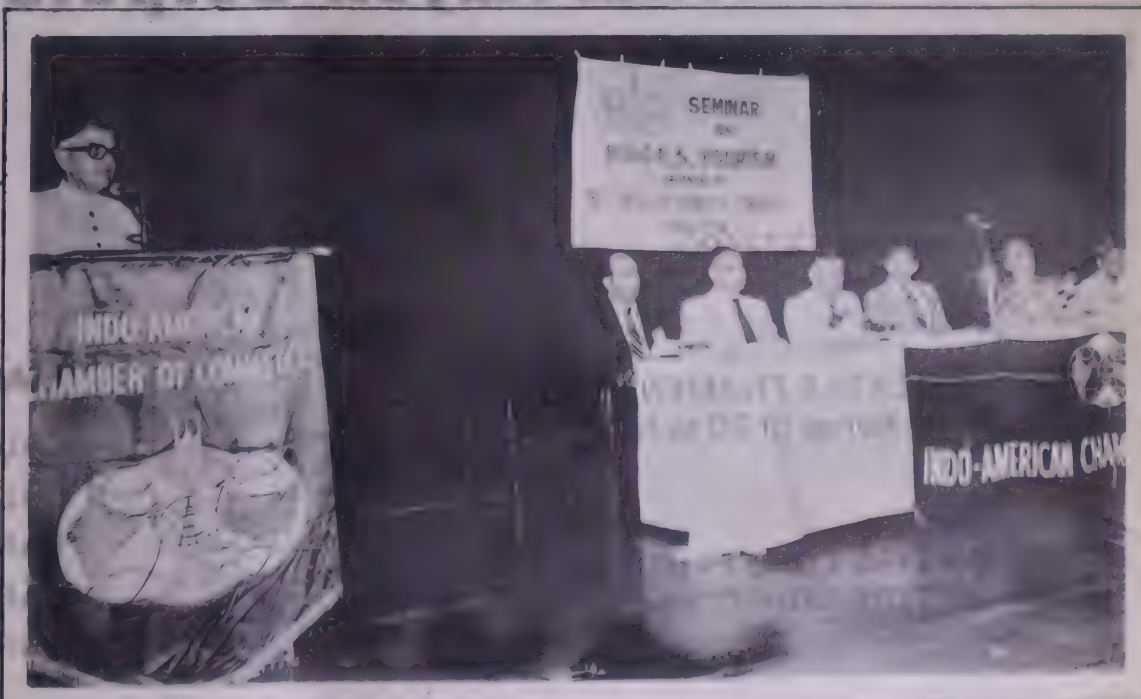
available. Americans particularly are very fond of visiting wild life and the operation of such charter companies operating small aircraft would help to open up and popularise our wild life sanctuaries.

It is also necessary, considering the vagaries of weather in different parts of the contries at different times of the year, to have easily available airconditioned cars and coaches. Encouragement must be provided to Indian industry to develop indigenous airconditioning units but in the meantime importation of such equipment could be allowed at concessional rates of customs duty.

Greater facilities at domestic airports should be provided for these are still areas of bottleneck and do not come up to international standards. There must be constant maintenance of cleanliness and other services which are sadly lacking.

Above all what we need is a greater degree of politeness, efficiency and eagerness to welcome a visitor on the part of the immigration, customs and other personnel at these airports. Nothing is worse than a tourist coming across an indifferent and at times even rude official of these public utility services, when Indians are famous for their hospitality.

now linked by Vayudoot services. For tourists to visit off-beat places, game parks, it may be useful to allow charter companies to cater to tourists who are prepared to pay for these services and who are limited for time. These charter companies could also serve group tours when seats on Indian Airlines are not



Mr Khurshed Alam Khan, Minister for Tourism, addressing a seminar on Indo-US tourism organised recently by the Indo-American Chamber of Commerce

Mr K.B. Sarwal is Director of Thomas Cook (India) Ltd.

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It was Mark Twain who made fun of the business of getting 'a wholesale turn of conjecture from a trifling investment of fact'. The fact is that the Prime Minister first met the US President at the post-Brandt Commission summit at Cancun. The conjecture is that their meeting was relaxed and pleasant, unlike the one between Mr Nehru and Mr Kennedy. Hearsay has it that both Mrs Gandhi and Mr Reagan were more at ease in mutual understanding than their advisers had thought it possible or desirable.

Since these Mexico consultations, a high-rise mansion of happy auguries has been built up in the past few months in anticipation of another Mr Reagan Mrs Gandhi encounter. This mansion has many rooms and the windows open to different views. The differing views have lent a variety of colour to the prospect of next week's meeting in Washington. Wishful thinking and conjecture have made the prospect more pleasing than the fact of the Cancun meeting warrants.

Some want it to succeed in order to keep Tarapur going. Some expect it will be sure against nuclear proliferation. Some hope it will guarantee food imports. Some more urge, as Mr Asoka Mehta once did, India to welcome Mrs Gandhi to bless American private enterprise and technology transfers in all sectors of the company. Some others worry India is too close for their comfort to the Soviet Union — or might get so to China. Some others envisage America will recognise how India's emergence as a big power boasting of political stability, military preparedness and economic resilience (though not strength and vigour) can allay regional tensions and create a South Asian zone of peace equally distant from the Soviet super power and China.

Some of these expectations must go wrong. In spite of propaganda build-up, enough facts should be known before the end of the month to suggest which hopes have been belied. There is no denying, however, that there will be a fruitful meeting of minds. Both Mrs Gandhi and Mr Reagan should be able to sympathise with each other genuinely on the similarity of experience since their turn to power. On the eve of their election, both had paved the road to political power by great many promises, of abundance for all in an economy where Mr Reagan thought everyone could come without saving.

The shards of their promises lie broken through the length and breadth of their

MID-TERM APPRAISAL

By M.V. DESAI

territory. In both India and the United States, failure of leadership is to be found in the life style and corruption of the rich, in the lawlessness of the not-so-rich and the poor who look upon the rich as equally culpable law breakers and in the waste inherent in military hardware which is neither a producer good nor a consumer good benefiting the economy. Both in India and the US the society has been culturally and economically tearing apart. As yet there is no sign of their international and internal troubles dying down.

Whether in Sri Lanka and Bangladesh, in Poland or in Iran and Argentina, altered relations have emerged after a march of events which some years ago could have been controlled and halted by Delhi, Moscow or Washington D.C. But, alas for the powers in the South Bloc, the White House and the Kremlin, no more. There now are on the move political, trade union, religious, traditional and social forces which treat the wishes and hopes, not to speak of dictats, from Delhi, Moscow and Washington with unconcern if not contempt. Mrs Gandhi, Mr Reagan and Mr Brezhnev are witness to this withering of their country's domination and domineering roles. They may not yet fully recognise how the world has changed at home and abroad. But there has been irreversible dispersal of decision-making and fragmentation of political power. If they do not want to sink further with each sinking regime in Dacca, Tehran or Warsaw, the recipe is not entangling alliances but dissociation and extrication and this world-wide trend is welcome from all points of view.

Inconvenient international events, as much as the bruising, battering, first-hand, experience of governance at home must make for a common bond of sobriety between Mrs Gandhi and Mr Reagan. Many dreams of 18 months ago have turned sour. It is therefore unlikely that Mrs Gandhi's talks with Mr Reagan will end with cut and dried answers to any major bilateral or regional issues. There indeed are no serious areas of disagree-

ment. Earlier the differences had emerged when Mr Nehru's non-alignment, howsoever useful it later proved to American interests in Korea and elsewhere, was laughed out of court as immoral by Mr Dulles. Sharp differences arose when Mr Nixon could think of little else but tilts towards Pakistan and India's midwifery in the birth of Bangladesh as an independent nation.

If the next week's Washington talks lack point and focus, it will not be the fault either of Mr Reagan or Mrs Gandhi. For on the political or philosophical plane, there is no high purpose motivating them, weighed down as they are by difficulties at home and abroad. No doubt, there will be a fair number of house-keeping jobs to be explored in pedestrian ways by the Indian and American bureaucrats. But this is what they are there for: ahead of Mrs Gandhi and some should stay behind to tie up the loose ends.

This encounter between two totally different casts of mind and personalities with disparate cultural backgrounds gives both Mr Reagan and Mrs Gandhi a pause for thought for a mid-term re-appraisal of their careers. They will realise in discussion that India cannot flatter the US even by imitation and America cannot become another India of mass poverty and degradation, in spite of what is happening to the white and black youth in the US. Each country can help the other by being true to its history and traditions, culture and mores, social needs and economic compulsions in a world where there now is no prospect of abundance for all but an inescapable need to move towards sufficiency for all before there is superfluity for some. They can help by non-interference in other people's backyards. What will matter is their own domestic examples and exertions.

There can then still be a few virtues and values that need to be cherished everywhere and, in particular, in India and the United States which have so much in common. These include acceptance of differences and diversities, forbearance and consideration for the opposite points of view, charity and magnanimity. Early in 1980, both Mr Reagan and Mrs Gandhi could have been excused for wielding the big stick and talking hard. Indeed Mr Reagan did call the men in the Kremlin 'cheats' and 'liars' in his first news conference. This is past history — best forgotten. It is now time for them, as was said by an American in another context to 'speak stickily but carry a big soft.'

Potential areas of understanding

By MINOO ADENWALLA

WHEN global perspectives in terms of superpower rivalry and confrontation have dominated the US foreign policy concerns, Indo-US relations usually have deteriorated. The reasons are fairly obvious. At such moments the US seeks to put as much diplomatic, economic and even military pressure on the Soviet Union as possible. Its policy emphasises alliances, bases, arms sales, economic embargoes, the building of armed might at home, and techniques for the rapid deployment of its air, sea, and naval forces around the world. Even the interests of its closest allies (and India has never been one) take second place to these primary aims.

The recent Reagan attempt to embargo supplies and equipment for the Soviet-Europe gas pipeline, which caused consternation among the US's European allies, is just one such example. In such periods the focus of the making of foreign policy becomes more centralised and moves closer to the President and his immediate circle of advisers in the White House. The National Security Council headed by the National Security Adviser, the CIA, and the Defence Secretary (who represents the interests of the Pentagon and who is also a member of the National Security Council) come to play a predominant role. The regional bureaus of the State Department and their country professionals, who usually seek to build better, long term bilateral relations with the regions with which they are specially concerned, are relegated to the background. Surely, this was one of the more important reasons for the resignation of Secretary of State Haig.

Cold war diplomacy

In such an atmosphere it is obvious that where choice becomes necessary, Pakistan's interests will be favoured over those of India's. In spite of periods of coolness, Pakistan has been a close and persistent ally of the US in matters concerning cold war diplomacy. It was a member of CENTO and SEATO, supplied air bases to the US for U-2 spy flights

over the Soviet Union, and in 1971 played a vital role in arranging Henry Kissinger's secret trip to China. The collapse of the Shah of Iran and the Soviet invasion of Afghanistan, have once more pushed Pakistan into prominence for the US. The two million Afghan refugees living on its borders provide an unending supply of recruits for the continuing guerrilla war against the Russian occupation forces. Its airfields and ports provide possible future staging bases for the American Rapid Deployment Force, if it is called into action. The massive supply of American arms, including the lethal F-16s, could create a powerful military machine which would supposedly act as a deterrent to possible future Soviet intrusion. It is also the price for Pakistani cooperation. It was inevitable that given US priorities, India's protests against the massive arms supply would be brushed aside.

To put it bluntly India, at the moment, carries little clout with the US. The US has few real, concrete, material interests in the sub-continent. American trade with and investment in India are minimal. It has very few natural resources that are vital to the US, unlike South Africa and Saudi Arabia. Most important, almost since independence Indian foreign policy has been "non-aligned." India has disapproved of cold war diplomacy, of CENTO, SEATO, US involvement in Vietnam, the build-up of Diego Garcia, the intrusion of American naval power in the Indian Ocean and a host of other initiatives.

On the other hand, many American observers have accused Indian policy of being biased in favour of the Soviet Union. They have pointed to events like India's muted reaction to the Soviet invasion of Afghanistan and her recognition of the Soviet supported government in Cambodia set up by Vietnamese invaders. India, in turn, can point to the supply of arms to Pakistan which have been used against her on four occasions, and the blatant support of Pakistan during the Bangladesh upheaval which ended with the dispatch of the *Enterprise* to the Bay of Bengal. The list of such charges and counter-charges is almost endless.

However, there have been other moments, though not many, when Indo-US relations have been on a friendly footing. They have occurred when Indian leaders have been less suspicious of American policy and motives, more prepared to respond to US overtures, but above all, when US policy concentrated on regional, bilateral, long-term interests irrespective of its policy toward the Soviet Union.

Long-term US interests

But if the US has few real, concrete material interests in the sub-continent, what are its regional, bilateral, long-term interests? Though less tangible, they can only be defined by those who have actual expert, professional and scholarly knowledge of South Asia, the kind of knowledge that exists, for example, among foreign service officers who have served in the region and in the State Department's Bureau of Near Eastern and South Asian Affairs, and exhibited by ambassadors like Galbraith, Moynihan, and Goheen, who were scholars long before they became diplomats.

It is in the long term interest of the US to foster the existence of strong, stable and independent nations so that a power vacuum does not occur which can be exploited by the Soviet Union. It is in the long term interest of the US to support democratic political systems in which the multiple interests of a diversified, industrial economy, and multiple centres of power, prevent sudden manipulation of a vast nation by a close-knit, insulated military junta, leading to crisis like the Falkland Islands adventure. It is in the long term interest of the US to expand trade, with and investment in a country with vast economic potential, which already has the third largest pool of scientists and engineers in the world. It is in the long term interest of the US to have good relations with a middle-level military power, that has its own expanding industrial defence base. These interests can be given precise definition only by those who know and understand the problems and complexities of the region, who can predict how its potential will develop; and therefore can suggest how US aid and policy can quietly help the process of such development.

"Learnt nothing"

Many experts, who testified before Congress against the arms deal, made some of these very points. More important, they pinpointed the dangers of the supply of \$ 3.2 billion in arms, including

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e 40 F-16 aircraft, to Pakistan. It could stabilise the region, lead to further adventurism in Kashmir, fuel and arms race on the sub-continent, prop up an increasingly unpopular military dictatorship, increase anti-Americanism, and even create another Iranian situation. Unlike Saudi Arabia where the Royal Family is popular for the moment and where sustained economic progress is taking place, the regime in Pakistan is narrowly based and dominated by the country's major ethnic majority. If US arms are used to ruthlessly suppress the restive non-Punjabi tribal minorities, the professional middle class opposition to Zia, and the banned political parties, these groups they ever came to power would be bitterly anti-American. President Reagan's top foreign policy advisers who seem to have little knowledge of and less concern for the internal situation in Pakistan and who seem to think purely in global, strategic and anti-Soviet terms, have learned nothing, but absolutely nothing, from the tragic Bangladesh episode.

In the face of such provocation India's recent policy towards the US has been remarkably mature and restrained. In

spite of protests against the arms deal, India has continued its dialogue with Pakistan on improving relations. Whether this results in a no-war pact, a treaty of peace, friendship and cooperation, or the mere setting up of a joint commission to promote commercial, cultural and other ties, it is a clear signal to the US that India has no intention of making the US arms deal an excuse for belligerence against Pakistan. Perhaps, most significant of all, have been Indian actions which increasingly demonstrate a pulling away from the Soviet Union, or at least an assertion of the real independence of her foreign policy. The move, initiated in December 1981, to settle the border dispute with China, which at the moment seems to be making progress, and the building of stronger ties with Saudi Arabia, one of the US's closest Near Eastern allies, must cause some concern to the Soviet Union.

In a number of recent interviews, Mrs Gandhi has reiterated India's independence of Soviet policy. In a February 1982 interview with a correspondent from *US News and World Report* she said: "Our relations with the Soviet Union are exactly what they were. They never were

as close as Americans said they were. Although we are friendly with the Soviets, that friendship does not affect what decisions we take on any international or national matter." Last January in an interview with a *New York* magazine she commented: "We are in no way dependent on the Soviet Union and we have taken good care to diversify our purchases especially in the area of military equipment." Such diversification might well have been the reason for the recent March visit to India of Soviet Defence Minister Dmitri F. Ustinov and a group of at least 30 Soviet lieutenant-generals plus Admiral Sergei G. Gorchkov, chief of the Soviet navy. There has been speculation that this was a move to attempt to dissuade India from buying military equipment from the West, especially the Mirage 2000's from France. If the speculation is correct, the move obviously failed.

Remarkable restraint

Another sensitive question which could have led to bitterness and confrontation between the US and India, but where the latter has again shown remarkable restraint, concerns Washington's ban on nuclear fuel for Tarapur in contraven-

(Continued on page 34)

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THE Prime Minister, Mrs Indira Gandhi's scheduled visit to Washington is viewed as a step by India and the United States in patching up their long troubled relationship. While acknowledging that there are differences between them on many global and bilateral issues, both sides are trying to accentuate such positives as trade, scientific and technical ties.

Throughout most of 1981, US relations with India were strained mainly because of the US deployment of the substantial security and economic assistance programme with Pakistan. Bilateral issues, such as the future of the US-Indian nuclear fuel supply relationship, also contributed to a downturn in Indo-American relations. In the later part of the year, however, a series of high-level meetings, including discussions between President Reagan and Prime Minister Mrs Gandhi at the Cancun, Mexico, summit were useful in improving mutual understanding and indicated interest on both sides in better relations.

Indo-American tensions are more the result of misunderstandings than conflicts of national interest. Mrs Gandhi has remarked frequently this year that she got along well with President Reagan at their first meeting in Cancun last October and that she seeks better and warmer ties with the United States.

The US and India have aimed at cordial relations, reflecting their common ideals of democracy, and framers of the Indian constitution studied the American system and grafted some of its features on to India's essentially parliamentary form of government.

(Continued from page 33)

tion of the 1963 agreement between the two countries. Many observers expected India to renounce the agreement in a fit of pique. But the Indian government has patiently tried to continue negotiations in what seems like an almost hopeless case. Ironically, the massive supply of American arms to Pakistan is being made while, according to the most reliable sources, its government is working feverishly to make an actual atom bomb!

All this does not mean that the Reagan administration is hostile to India, that it would not like to build better relations. In those areas where its perceived interests do not clash with India's, it has not been antagonistic. For example, it had been

Indo-US ties: Better days ahead

By HASMUKH SHAH

Today, the US is India's largest trading partner and has been an important source of economic assistance. The current annual trade between the two nations is about three billion dollars and is expected to rise substantially. The technical collaboration agreements between US and Indian firms are also growing rapidly.

It is recognised in both countries that despite the political differences both India and the US have a lot to gain by improving the trade and commercial relations between the two countries. Both Mr Harry G. Barnes, Jr, US Ambassador at New Delhi and Mr K. R. Narayanan, India's Ambassador at Washington, have been striving hard in this direction. It is most heartening that their efforts are bearing fruit and, as a result, the Indo-US trade and commercial ties are becoming stronger.

As Mr H. R. Lucius, Counsellor of Commercial Affairs, American Embassy, New Delhi, recently stated, "The Government of India is taking a greater interest in making India's business climate more attractive. It is actively encouraging foreign collaboration." Mr Lucius also cited Prime Minister Mrs Gandhi's message to the Indo-US Business Council's

rumoured that America would actively oppose India's request for the huge five-and-a-half billion dollar IMF loan. But this did not prove to be the case. India must also attempt to understand and appreciate to the extent it can, the US concern with the growth of Soviet power and influence around the world and its natural anxiety to protect its vital oil interests in the volatile Near East. Given time the US's self-defeating policy in Pakistan should become apparent. Until then India should hew to its present mature foreign policy course waiting for the moment when more knowledgeable and mature voices take over the management of South Asian policy, and the US's regional, bilateral, long-term interests once more come into focus.

meeting in New Delhi last February. "There is scope for investment and co-operation by American companies in areas which need sophisticated technology or are engaged in 100 per cent export." This is so far as we are aware the first time that an Indian Prime Minister has invited American companies to establish themselves in India, Mr Lucius said.

Echoing the same view Mr Craig A. Nalen, president, Overseas Private Investment Corporation, recently told the members of the visiting Indian businessmen's delegation in Washington, that "OPIC has been watching this recent economic development closely, all of which contribute importantly to the creation of more favourable investment climates in India."

Mr Craig cited various measures the Government of India has taken to facilitate foreign investment and reduce the bureaucratic delays in processing of papers and liberalisation of import restrictions.

It is realised in both countries that politically there are some limitations because of each country's different views on certain issues, globally as well as bilaterally. Despite this, the belief in both the nations is becoming stronger that the best way the two countries can come closer is through trade and commerce. It is said, trade follows the flag but the reverse can also be true between India and the US.

The 'Reaganomics' emphasises the significance of the 'magic of the free market', and the steps the Government of India has been taking to improve the nation's economy by giving more encouragement to the private sector and creating a more favourable climate for foreign investment have been construed here, both by the US Government officials as well as the private sector, as highly encouraging.

It is, therefore, believed that the economic ties between the two countries will go deeper and, considering the fact that the top people in Reagan's administration are successful businessmen, the closer economic and commercial ties between the two will help bring the two nations together politically.

Mrs Indira Gandhi's visit is construed as another example of the ongoing efforts in both countries to build a strong and more constructive relationship between India and the United States — the largest and strongest democracies in the world.

India's trade with USA Compiled by Commerce Research Bureau							statistics		
Year	India's exports to USA (Rs crores)	USA's share in India's total exports (per cent)	USA's total imports (Rs crores)	India's share in USA's total imports (per cent)	India's imports from USA (Rs crores)	USA's share in India's total imports (per cent)	USA's total exports (Rs crores)	India's share in USA's total exports (per cent)	India's trade balance with USA (Rs crores)
1960-61	162	16.0	7,791	2.1	5,17	29.2	9,806	5.3	-355
1961-62	183	17.6	7,587	2.4	403	23.4	10,014	4.0	-220
1962-63	180	16.7	8,463	2.1	547	30.7	10,336	5.3	-367
1963-64	205	16.4	8,861	2.3	709	36.8	11,132	6.3	-504
1964-65	232	18.0	9,665	2.4	804	37.8	12,685	6.4	-572
1965-66	233	18.4	11,036	2.1	843	38.0	13,104	4.1	-610
1966-67	219	18.9	20,308	1.1	783	37.7	22,823	3.4	-564
1967-68	207	17.3	21,558	1.0	777	38.7	23,717	3.3	-570
1968-69	234	17.2	26,489	0.9	572	30.0	25,977	2.2	-338
1969-70	238	16.8	28,736	0.8	467	29.5	28,505	1.6	-229
1970-71	207	13.6	31,822	0.7	453	27.7	32,418	1.4	-246
1971-72	263	16.4	36,692	0.7	419	23.0	33,495	1.3	-156
1972-73	276	14.0	47,137	0.6	235	12.6	39,846	0.6	+41
1973-74	346	13.7	59,816	0.6	498	16.9	57,999	0.9	-152
1974-75	374	11.3	79,663	0.5	737	16.3	87,239	0.8	-363
1975-76	518	12.8	92,399	0.6	1,285	24.4	96,155	1.3	-767
1976-77	576	11.2	1,15,067	0.5	1,059	20.9	1,02,124	1.0	-483
1977-78	675	12.5	1,49,920	0.6	756	12.6	1,17,633	0.7	-81
1978-79	777	13.6	1,73,097	0.5	762	11.2	1,43,742	0.6	+15
1979-80	817	12.7	2,00,630	0.5	926	10.3	1,75,022	0.8	-109

SOURCES: 1) Government of India, Ministry of Commerce: *Annual Report, various issues*
2) International Monetary Fund: *Direction of Trade Statistics, Yearbook 1981*

Direction of US foreign trade Compiled by Commerce Research Bureau								
	Exports				Imports			
	1980		1981 (Jan—Nov)		1980		1981 (Jan—Nov)	
	\$ million	Per cent to total US exports	\$ million	Per cent to total US exports	\$ million	Per cent to total US imports	\$ million	Per cent to total US imports
Canada	35,395	16.0	36,724	17.1	42,001	16.6	43,193	17.1
Japan	20,790	9.4	19,758	9.2	32,961	13.0	36,727	14.5
Mexico	15,145	6.9	16,408	7.6	12,774	5.1	12,826	5.1
UK	12,694	5.8	11,498	5.4	10,184	4.0	12,378	4.9
Saudi Arabia	5,768	2.6	6,695	3.1	13,323	5.3	14,195	5.6
West Germany	10,960	5.0	9,477	4.4	12,370	4.9	10,815	4.3
France	7,485	3.4	6,779	3.2	5,532	2.2	5,578	2.2
Nigeria	1,150	0.5	1,374	0.6	11,316	4.5	8,998	3.6
Venezuela	4,573	2.1	4,978	2.3	5,547	2.2	5,347	2.1
Netherlands	8,669	3.9	7,830	3.6	2,041	0.8	2,337	0.9
Italy	5,511	2.5	4,811	2.2	4,676	1.8	5,011	1.9
Brazil	4,343	2.0	3,547	1.7	4,000	1.6	4,441	1.8
Hong Kong	2,686	1.2	2,416	1.1	5,026	2.0	5,302	2.1
South Korea	4,685	2.1	4,724	2.2	4,432	1.8	3,427	1.4
Belgium	6,661	3.0	5,282	2.5	2,006	0.8	2,233	0.9
Indonesia	1,545	0.7	1,184	0.6	5,003	2.0	5,969	2.4
Libya	509	0.2	774	0.4	7,395	2.9	5,354	2.1
Iran	23	—	280	0.1	354	0.1	112	—
Others	72,111	32.7	70,060	32.7	72,054	28.5	68,542	27.1
Of which India	1,689	0.8	1,599	0.7	1,209	0.5	1,237	0.5
Total	2,20,703	100.0	2,14,599	100.0	2,52,995	100.0	2,52,785	100.0

Notes: (—) = Nil or negligible

Countries are ranked according to the total volume of trade (exports + imports) in 1981

SOURCES: International Monetary Fund: *Direction of Trade Statistics, Yearbook 1981 and various monthly issues*

Commodity composition of India's Exports to USA : 1980

Compiled by Commerce Research Bureau

Item	Exports	
	Rs lakhs	As percentage of total export to USA
Diamonds	16,059	18.5
Readymade garments	11,419	13.1
Jute fabrics	7,375	8.5
Gums, resins & lacs	3,925	4.5
Carpets & rugs	3,648	4.2
Coffee	3,418	3.9
Cashew-nut	2,990	3.4
Cotton fabrics	2,443	2.8
Precious & semi-precious stones & pearls	2,443	2.8
Leather & leather products	1,998	2.3
Marine products	1,919	2.2
Other crude vegetable oils	1,816	2.1
Textile made-ups	1,602	1.8
Chemical & related products	1,348	1.6
Peper & spices	1,197	1.4
Others	23,442	26.9
Total	87,042	100.0

SOURCE: Indo-American Chamber of Commerce (WIC) and Mahratta Chamber of Commerce: *Seminar on Indo-US Bilateral Trade on November 19, 1981 at Pune.*

Commodity composition of India's Imports from USA : 1980

Compiled by Commerce Research Bureau

Item	Imports	
	Rs lakhs	As percentage of the total imports from USA
Fertilisers and fertiliser material	19,603	14.7
Veg. oils (soft) crude or refined	18,025	13.6
Aircraft, spacecraft associated equipment	16,558	12.4
Specialised industrial machinery	5,615	4.2
Preparations of cereal, flour, starch, etc.	5,393	4.1
Miscellaneous industrial machinery	5,361	4.0
Prof. scientific & control equipment	4,488	3.4
Inorganic chemicals & products	4,314	3.3
Organic chemicals & products	3,228	2.4
Iron & steel plates, sheet, bars, wires, etc.	2,704	2.0
Electrical equipment & electrical parts	2,657	2.0
Steam & vapour generating boilers & parts	2,252	1.7
Others	42,895	32.2
Total	1,33,093	100.0

SOURCE: Indo-American Chamber of Commerce (WIC) and Mahratta Chamber of Commerce: *Seminar on Indo-US Bilateral Trade on November 19, 1981 at Pune.*

Comparative data: USA in the world

Compiled by Commerce Research Bureau

Item	Unit	Reference year	USA	World	Percentage share of USA in the world
Total geographical area	Million sq km		9.4	133.9	7.0
Arable land	Million sq km	1978	1.9	13.3	14.3
Arable land as per cent of total	Per cent	1978	20.2	9.9	—
Forest area	Million sq km	1978	2.9	40.6	—
Forest area as per cent of total geographical area	Per cent	1978	31.0	30.3	—
Population	Million	1981	230	4,508	5.1
Density of population	Persons per sq km	1981	24	34	—
Growth of population	Per cent	1970-1980	1.1	2.1	—
Gross National Product (GNP)	\$ '000 million	1980	2,582.5	—	—
Per capita GNP	\$	1979	10,610	—	—
Annual growth of GNP	Per cent	1970-1979	2.2	—	—
Annual growth of industrial production	Per cent	1970-1980	3.2	—	—
Iron ore production	Million tonnes	1980	70.4	496	14.2
Crude petroleum production	Million tonnes	1980	424.0	2,979	14.2
Coal production	Million tonnes	1980	714.5(a)	2,740	26.1
Steel (crude) production	Million tonnes	1981	108.9	755	14.4
Annual growth of agricultural production	Per cent	1971-1981	2.5	2.3	—
Exports	\$ million	1981	2,33,739	18,40,400	12.7
Imports	\$ million	1981	2,73,352	19,00,800	14.4
Per capita energy consumption	Coal equivalent in kg	1979	12,350	2,069(b)	—

Notes: (a) Include lignite (b) 1976

SOURCES: 1) FAO, *Production Yearbook, 1979 and Monthly Bulletin of Statistics, April 1982.*

2) United Nations, *World Energy Supplies, 1972-1976*

3) International Monetary Fund, *International Financial Statistics, July 1982 and Yearbook 1981*

4) United Nations, *Monthly Bulletin of Statistics, May 1982*

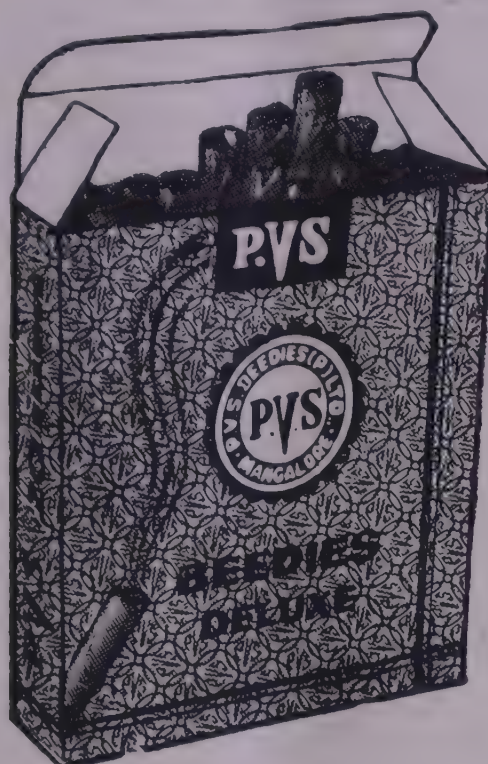
5) World Bank Atlas, 1981.

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and some men that are good, but very few men
that are both great and good"

... 'COLTEN'

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POWER SITUATION

WITH the advance of the south-west monsoon in the country there are expectations of an improvement in power generation in the coming months. Meanwhile, states like Orissa, Rajasthan and West Bengal continued to face severe power cuts.

The power generation during the first two and a half months (April 1—June 15) of the current financial year at 26.5 billion units was higher by 5.6 per cent than that of 25.1 billion units during the corresponding period of 1981-82. The Union Energy Ministry has fixed a target of creation of an additional installed capacity of 3,500 mw during the current financial year (1982-83) as against the target of 2,175 mw during 1981-82.

The State-wise power situation as also the restrictions on the use of power are given in the following paragraphs.

Bihar: The four-hour restriction during the peak period on industrial consumers continued. The categories and industries exempted from this restriction included: the areas served by the Damodar Valley Corporation; continuous process units; Heavy Engineering Corporation, Ranchi; Hindustan Fertiliser Corporation, Barauni; Indian Drugs and Pharmaceuticals Ltd, Muzaffarpur; Uranium Corporation of India, Jaduguda; printing presses of daily newspapers; and cement manufacturing units.

Gujarat: The 50 per cent power cut on continuous process industries and 40 per cent cut on non-continuous process industries continued in the State.

Haryana: The restriction on peak load demand of industries from 6 p.m. to 9 p.m., in addition to one-day weekly off, continued. The Union Government was reported to have agreed to allocate an additional quantum of coal to Haryana in order to ensure that the thermal power generation is not affected. The thermal stations in the State were reportedly having only a week's stocks of coal which were considered inadequate. Meanwhile, the State Electricity Board has asked the industrial and agricultural consumers of power having unauthorised load extensions to pay additional charges for a back period of six months ending June for regularisation of the unauthorised extensions in the State.

Jammu & Kashmir: A power cut of five hours a day for small units and six hours for domestic consumers continued.

WEST BENGAL: DRASTIC FALL IN GENERATION

By COMMERCE RESEARCH BUREAU

Karnataka: The 45 per cent power cut for consumers with contract demand of 1,001 kva and above, 33.33 per cent cut on 501 kva to 1,000 kva and ten per cent cut on 251 to 500 kva continued.

Madhya Pradesh: The four-hour per day power cut in Bhopal as also other restrictions and load-shedding continued in the State.

Maharashtra: The acute power shortage because of the unprecedented cascade tripping of all the power stations in the State on June 14 was brought under control — i.e., to the pre-crisis level — by June 15. As such the 30 per cent demand cut and 35 per cent energy cut on general industries and 22.5 per cent demand cut and 30 per cent energy cut on continuous process industries continued in the State.

Orissa: The power cut of 60 to 66 per cent on 22 major industries (including the Rourkela steel plant, the Talcher fertiliser plant of the Fertiliser Corporation of India, ferro-silicon, ferro-chrome, ferro-manganese, caustic soda and paper industries) and the additional cut on these industries totalling 70 mw continue to be in force in the State. The Rourkela steel plant was reported to have suffered a production loss of 40,000 to 45,000 tonnes of saleable steel during June because of power cut.

Punjab: Twenty-five per cent power cut on continuous process industries, including mini-steel plants and essential industries, 18 hours' daily cut for tubewells and eight hours' cut for general purposes continued. However, the industrial units at the Gobindwal nucleus industrial project area were being supplied uninterrupted power to enable them to run three shifts daily while farmers were being supplied power for 14 hours, on an average, per day.

Rajasthan: Industries in the State were reported to be hard pressed for want of power as both the units of Rajasthan Atomic Power Station continued to be

out of order. The strike by 65,000 workers of the State Electricity Board also continued in the State. The Unit II of the Rajasthan Atomic Power Station which was scheduled to resume power generation from June 17 was postponed for another week for testing of the turbines. The Unit I was, however, expected to start power generation only in September 1982, after repairs.

Tamil Nadu: The 45 per cent power cut on peak demand of high-tension textile industries using generators and 25 per cent cut on other high-tension industries (excluding those in rural areas), whose connected load was more than two mva, continued. In addition to 45 per cent demand cut, the textile industry was experiencing massive load-shedding ranging from six hours to 12 hours daily.

In order to make the State self-sufficient in power supply the State Government decided on June 16, to launch a three-point programme: to economise the use of power, to increase thermal generation and to expedite the implementation of the on-going power projects. This would help reduce the financial burden by way of purchase of power from other States.

Uttar Pradesh: Peak period restrictions on industries continued in the State. An average of 11 to 14 hours supply of power a day to farmers was also continued.

West Bengal: There was no respite from the grim power situation in the State as there was a drastic fall in the power generation by DVC and Santaldih power stations. The 15 per cent demand cut on high-tension industries as also peak period restrictions on consumers getting supply at 3.3 kv and above, continued.

Production in the mills of Durgapur Steel Plant remained suspended for some days following a drastic power cut by the Damodar Valley Corporation. The Plant was reportedly receiving only 18 mw of power as against its daily requirement of 50 mw.

CAPITAL MARKET

Financial institutions to rescue AP Rayons

A consortium of financial institutions, a recent meeting in Bombay, decided bail out Andhra Pradesh Rayon Corporation Ltd (APR) by releasing a consortium advance totalling Rs 2.75 crores for tiding over the financial difficulties. The company had to close down operations within six months of going into commercial production, owing to several technical snags which resulted in low quality output. At the outset, the project cost was estimated at Rs 32 crores for production of 33,000 tonnes per annum of rayon pulp. Subsequently in July 1980 the cost was revised to Rs 36.5 crores. However, due to delay in civil construction and some faulty estimates, the final cost amounted to Rs 41.42 crores, thus resulting in an overrun of Rs 4.92 crores. The consortium of financial institutions has recommended several technical and managerial methods which APR is currently implementing. The break up of advances to be made by the financial institutions to APR is: Industrial Development Bank of India — Rs 75 lakhs; Industrial Reconstruction Corporation of India — Rs 75 lakhs; Industrial Finance Corporation of India Rs 40 lakhs; Industrial Credit and Investment Corporation of India — Rs 46 lakhs; Life Insurance Corporation of India — Rs 26 lakhs; and Unit Trust of India — Rs 13 lakhs.

HDC's cynamid project on schedule?

The chemical division of Hindustan Development Corporation Ltd at Olpad, Surat district has achieved substantial progress in regard to the installation of the cynamid complex and the plant is scheduled to go into commercial production in the third quarter of this year. The company is also setting up a new unit styled as 'Insulators and Electricals company' for taking up the manufacture of 5,000 tonnes per annum of high tension insulators in Madhya Pradesh. HDC has secured a letter of intent for this purpose. It has also entered into technical collabo-

ration agreement with a West German firm for the project. Suitable financial arrangements for the scheme are being evolved.

TANSI tie up with Hongkong firm

The Tamil Nadu Small Industries Corporation (TANSI) is likely to set up a shoe making unit in Tansi's leather complex at Vinnamangalam, South Arcot district in collaboration with a Hongkong firm, Gordon Woodroffe. The Hongkong firm, which will have 45 per cent equity participation in the Rs 1.5-crore project, will supply machinery and look after quality control, training of personnel and marketing of the product.

ACC quits Nagarjuna fertilisers

Associated Cement Companies Ltd (ACC) has severed its ties with the Rs 600 crore Nagarjuna fertiliser project. ACC had initially planned to invest Rs 30 crores in the project with the control of management in its hands. At the last board meeting, however, the ACC management decided to opt out. The main reason for ACC's pull-out is the ACC board's determination to channelise all the resources of the company towards establishing a stronger foothold in the cement industry. With a large number of one-million-tonne-capacity cement plants coming up within a couple of years, ACC fears that the company, at present the leader holding some 26 per cent of the market with a production of eight million tonnes, may suffer a decline in its present market holding. ACC is planning to raise its production to 10 million tonnes by 1985.

IDBI modifies assistance scheme

Industrial Development Bank of India has made certain modifications under two of its schemes of assistance to industrial units, namely, the Bills Rediscounting Scheme and the Technical Development

Fund (TDF) Loan Scheme. Under its Bills Rediscounting Scheme, IDBI has decided to extend, with immediate effect, the scope for assistance under the scheme so as to cover items of equipment needed for expansion and diversification of production capacity of industrial units, besides those required for modernisation replacement and balancing. Under the Technical Development Fund Loan Scheme, IDBI has decided to raise, with immediate effect, the annual loan limit from Rs 35 lakhs to Rs 70 lakhs per unit. The other terms and conditions under both the schemes will remain unchanged.

BEL plan misfires again

The 12-year old proposal of Bharat Electronics Ltd (BEL) to manufacture black and white television glass shells has once again run into trouble. The Rs 30 crore project, first proposed in 1970 and approved several times at the highest level, has been hanging fire for one reason or the other. The Prime Minister has now ordered a fresh review of the proposal in the light of the Government's decision to introduce colour television in the country in a phased manner. Earlier, in December 1981, she had directed the departments concerned to find out whether a composite plant to manufacture both black and white and colour TV glass shells could be set up and, if so, whether India could get offers other than from one multinational company with whom BEL had been proposing collaboration since 1971. According to the Information and Broadcasting Ministry, the collaboration for a composite plant with a capacity to produce one million glass shells would involve an investment of Rs 50 crores, whereas the BEL proposal would mean an investment of Rs 30 crores for black and white plant and Rs 100 crores for a composite plant of the capacity of one million sets. The Prime Minister is reportedly of the view that the department should examine the feasibility of setting up a composite plant rather than a black and white plant to be later converted into a composite plant. The proposal for black and white plant was cleared by the Planning Commission about two years ago.

THE TATA IRON AND STEEL COMPANY LIMITED

Chairman's Statement

The following is the statement of Mr J. R. D. Tata, Chairman of the Tata Iron and Steel Company Limited, for the year 1981-82.

As our Company completes the 75th year of its existence, it is fitting that we should look back up on the long road — rarely a smooth one, often a rocky one — along which we have travelled these seven-and-a-half decades. While the statistical statement on pages 42 and 43 (of the Annual Report) presents a condensed picture of the Company's progress which does illustrate the slow pace of our growth and the long periods of stagnation we have to endure over these many turbulent years, they give little hint of the immense difficulties and obstacles we had to overcome in our long struggle to establish the steel industry of India in fulfilment of Jamsetji Tata's vision.

Endless struggle

2. Barring the post-World War I period, when we were nearly put out of existence by massive dumping of steel from abroad and were saved only by the timely introduction of protective duties and a small subsidy for a brief period, the most serious impediment to progress we faced until last year was the insistence of successive governments, in disregard of economic realities, to fix the steel prices allowed to the Indian steel industry at about half those earned by steel producers in the rest of the world. We were thereby continuously deprived

of the internal resources required to keep our plant efficient and modern, let alone to expand it. Were it not for the opportunity given to us by the Government of India in the early fifties to double our installed capacity, we would indeed have been hard put to survive. It is right, therefore, that we should remember with gratitude the encouragement and assistance we got from the Government of Pandit Jawaharlal Nehru and the boldness displayed by the late T. T. Krishnamachari who, as Steel Minister and later as Finance Minister, piloted the project through the Cabinet.

3. After the temporary display of economic realism, stagnation was our Company's destiny for the next 25 years while the world's steel industry, led by that of Japan, grew and prospered until disrupted, along with all industries, by the successive bouts of recession and inflation caused by the catastrophic rise in oil prices from 1973 onwards. Throughout this long and frustrating period we pleaded in vain for a change in Government's industrial policy and particularly in regard to price controls, in the interest of the public sector plants as well as our own and of the country as a whole.

4. To add to our troubles, all Indian industry began in the last decade to suffer increasingly from the multiple afflictions of inflation and shortages. Heroic

efforts had to be made by our Management just to maintain production despite grievous shortages of power, coal and transport.

A breath of fresh air

5. Government's decision in February last year to deregulate over half of the steel output of the main producers, followed by the deregulations of all remaining categories of steel in April this year, came as a long-awaited breath of fresh air in the stifling atmosphere in which we had struggled all those years. By an interesting coincidence, it was once again the Minister in charge of steel, and then of finance, this time Mr Pranab Mukherjee, who initiated this important change of policy and piloted it through the Government. We are grateful to the Government and to him, as I am sure the public sector of the industry must be too, for this overdue change of a policy which was mainly responsible for hampering and delaying the growth of the steel industry for so long.

6. In the year under review, the Indian economy benefited from another favourable monsoon, from improved power supply and from more helpful economic policies, including the deregulation of steel prices, liberalisation of imports and from the success of the Government's battle against inflation, which helped to instil confi-

dence and virtually to eliminate black market premia on many products.

Disturbing signs

7. Whilst the country's economic performance was thus gratifying, disturbing signs of change have begun to appear in the current year interpreted by industry and some economists as the beginnings of a deepening recession and by the Government as merely a process of adjustment between demand and improved supply with no recessionary implication. Whatever the respective soundness of these two points of view, there is no doubt that taking advantage of the greatly liberalised import rules, such large quantities of some products including soda ash, aluminium, polyester and special steels were imported at such unfairly low prices as to create a glut in the market and compel Indian producers of the same products drastically to reduce production or even to close down their factories. It is natural that producers who can no longer sell their products or can do so only at a heavy loss should consider that, at least in their business, a state of recession prevails.

Excessive imports...

8. Liberalised imports of materials in short supply which permit fuller utilisation of installed capacity are no doubt generally beneficial to industry.

and consumers, but they can cause great damage if allowed to go out of control, as seems to have happened in the past year on some products, with Government failing to make a distinction between desirable imports at economic prices and excessive imports at "dumping" prices.

...and credit restrictions

9. Apart from this cause of recessionary activity in some areas of the economy, the stringent credit restrictions imposed by the Government as its most potent weapon in combating inflation have created a genuine shortage of funds in the hands of producers and buyers of some products and capital goods. This has not only inhibited further orders being placed, but has also caused long delays in honouring bills for equipment already purchased, as a result of which producers find themselves hard put to finance growing inventories and outstanding bills. This situation is also understandably treated by industry as conducive to a recession.

10. In view of the conflicting needs of keeping inflation in check and at the same time of promoting growth, all one can suggest is that the Government should fine-tune its import, credit and fiscal policies, make them more selective than they have been upto now and so ensure that the rising tempo of investment and production, which was a gratifying feature of the economy's performance in the past year, is not allowed to run out of steam. Those industries with the maximum potential for generating tax revenues and for saving or earning foreign exchange, should be given a clear priority in the allocation of credit and other forms of support, not only for the purpose of sustaining their production and viability but also to ensure the maintenance of the tax revenues they provide to Government.

A record year

11. Insofar as our Company is concerned, shareholders will, I hope, have been happy with its performance at the close of the 75th year of its existence, and with the Board's decision not only to maintain last year's 15% dividend on the 40% larger equity capital, but, subject to the approval of the financial institutions and the Joint Plant Committee, to increase it by 2% as a bonus to mark the 75th anniversary of the Company which I hope will disprove the complaint of some shareholders that the Directors are step-motherly towards their shareholders.

12. While the Company continued to operate at over a hundred per cent of its installed capacity, the record profit was mainly due to the remarkable change which took place when Government allowed, from February 1981, the main producers to charge a fair market price for billets and bars. As you know, in April this year deregulation of prices has been extended to all categories of steel.

13. One possible uncertainty in the new dispensation is that whereas, when prices of billets and bars were decontrolled last year, the main steel producers were left individually free to fix their selling prices for deregulated categories, from April this year the price fixing function has been entrusted to the Joint Plant Committee under the Chairmanship of the Iron and Steel Controller. I hope that the representatives on the J.P.C. of the integrated steel industry, five-sixths of whom are today in the public sector, will be left free to use their judgement, tempered by their sense of social responsibility, in fixing the selling prices of their products without interference from Government.

Causes for worry

14. Two other elements of the new policy vis-a-vis the steel

industry which cause us some worry are the rate of contribution which we have to make to the Steel Development Fund and the interest to be charged to us on borrowings from the S.D.F.

15. When the Steel Development Fund was created in 1978, the objective was announced as being that of providing loan finance for the modernisation and development of the ageing steel plants. Shortly thereafter the Government decided to extend the scope of the S.D.F. to include compensation for cost escalations beyond the producers' control. Withdrawals from the Fund on this account, however, grew so rapidly and were so heavy that, by the end of 1980, the Fund was totally exhausted. Faced with this situation, the previous S.D.F. scheme was abandoned and, with effect from April 1, 1981, the main producers' payments to the Fund were fixed at a flat rate of Rs 700 per tonne of all saleable steel despatched minus a deduction of Rs 100 per tonne in our case and Rs 200 in that of the Government plants for cost escalations. As in our view the difference of Rs 100 per tonne is no longer justified since the deregulation of prices was made applicable to all categories of steel, we have made a representation to Government to allow us the same rate of deduction. We have also urged them to reduce the basic contribution per tonne to the Fund which we consider much in excess of the needs of the existing plants.

16. In regard to the rate of interest on loans advanced to the steel plants from the S.D.F., we have urged that, considering it is the steel producers themselves who provide the funds from their gross revenues at no cost whatsoever to Government, and in order not to inflate the cost of modernisation, the rate of interest charged on S.D.F. loans, should be substantially

less than that charged by the financial institutions on term loans which Government has upto now decided should apply to loans from the Steel Development Fund.

Current Cost Accounting

17. Considerable discussion has taken place in recent years in India and in other countries on the need to revise the presentation of corporate accounting so as to assess the impact of inflation on capital costs as well as on operating costs and, for that purpose, to frame them on what has come to be known as the Current Cost Accounting basis instead of the Historical Cost basis. In fact, in the U.S.A. it is mandatory for corporate management to include in their report a statement of the financial position of the company based on current cost accounts.

18. In an inflationary era such as ours, in which the replacement cost of capital equipment keeps steadily escalating, corporate accounts based on historical costs suffer from the main drawback that, because the annual provisions made for depreciation during the life of an asset and allowed for tax purposes are grossly inadequate to finance its replacement, illusorily high profits are presented each year on which the company is then heavily taxed. Furthermore, the inadequacy of funds available for replacement tends to compel companies to operate obsolete equipment for too long, depriving them in the process, of the greater efficiency and lower costs which more modern equipment would have provided.

19. A further important drawback is that management is deprived of the true picture of the company's real worth and profitability on which to plan its current and future operations. This unsatisfactory situation is corrected under Current Cost

Accounting practice by a continuous revaluation of assets in the annual accounts to correspond with current costs.

20. Although a change-over to Current Cost Accounting could be adopted in practice only if Government approved of it for tax and other purposes, of which there is no sign today, we have had a quick expert valuation made of our plant and machinery and notionally revised the main items of the year's accounts as they would appear if kept under the Current Cost Accounting basis. The following picture emerged:

The Gross Block would be:
Rs 1,954 crores instead of Rs 650 crores

The Net Block :
Rs 1,051 crores instead of Rs 304 crores

The provision for depreciation :
Rs 101 crores instead of Rs 27 crores

The profit subject to tax
(after necessary consequential adjustments):
Rs 7 crores instead of Rs 78 crores

21. Such a situation would obviously be unacceptable if all

other financial parameters remained unchanged. If, however, the Current Cost Accounting system were in vogue in India resulting in a marked decrease in tax and a corresponding increase in the Company's cash-flow, there would be no case for continuing the investment allowance scheme or its predecessor, the development rebate scheme or, for that matter, the SDF scheme itself. Assuming that no contribution to the Fund was required, the year's profit before tax in the above notional example would be increased by Rs 90 crores. Alternatively, the S.D.F. scheme might continue, but on a substantially reduced scale to provide additional loan funds for modernisation and expansion.

22. As there is no prospect in the near future of any such fundamental change in Indian corporate and fiscal laws governing the presentation of company accounts, there is no proposal before your Company to present the annual balance

sheet and profit and loss account on a Current Cost Accounting basis. This part of my Statement has been included merely to provide shareholders, management and Government with a more realistic understanding of the unfair and adverse consequences of levying income tax on industry on illusory profits calculated on historical costs and to underline the need for a change in the corporate laws and fiscal policies of Government.

A Tribute

23. Year after year, I have concluded my Statement by paying tribute to the unique spirit in which more than 60,000 employees of the organisation confront and overcome enormous problems and difficulties. Once again they have performed magnificently in presenting us with impressive records in production and sales, in profits, and in the conservation of energy, and I am sure shareholders will wish to join me in expressing our deep apprecia-

tion and thanks to the Management and employees at all levels for making this 75th year such a landmark in the long history of the Company. It is apt to recall, at this time, the memorable words of our then Vice-Chairman, Mr J. D. Choksi, on the occasion of the Diamond Jubilee of the Company fifteen years ago:

"There are certain corporations the world round, which stand out from their fellows. They need not be the largest or the most prosperous in their country or even in their given field but their achievements and traditions are epochal and in peoples' minds identify the trade or industry to which they belong with themselves... The Tata Iron and Steel Company is such a corporation."

J. R. D. TATA
Chairman

Bombay, 2nd July 1982.

(NOTE: This does not purport to be a record of the proceedings of the Annual General Meeting.)

BOOKLETS ON ECONOMIC MATTERS

Since inception in 1956 we have published over 400 booklets on economic problems, with particular reference to India. The authors include: N. A. Palkhivala, Naval H. Tata, H. T. Parekh, Prof. Gangadhar Gadgil, Arthur F. Burns, Prof. P. T. Bauer, M. A. Rangoonwala, M. H. Mody, Bhanu Pratap Singh, the late Prof. B. R. Shenoy and others.

To mark the Silver Jubilee of the Forum we have decided to make available sets of 10 booklets against a contribution of Rs 5 per set to cover handling charges to members of the public. Please send Rs. 5 by M.O. or P.O. immediately to:

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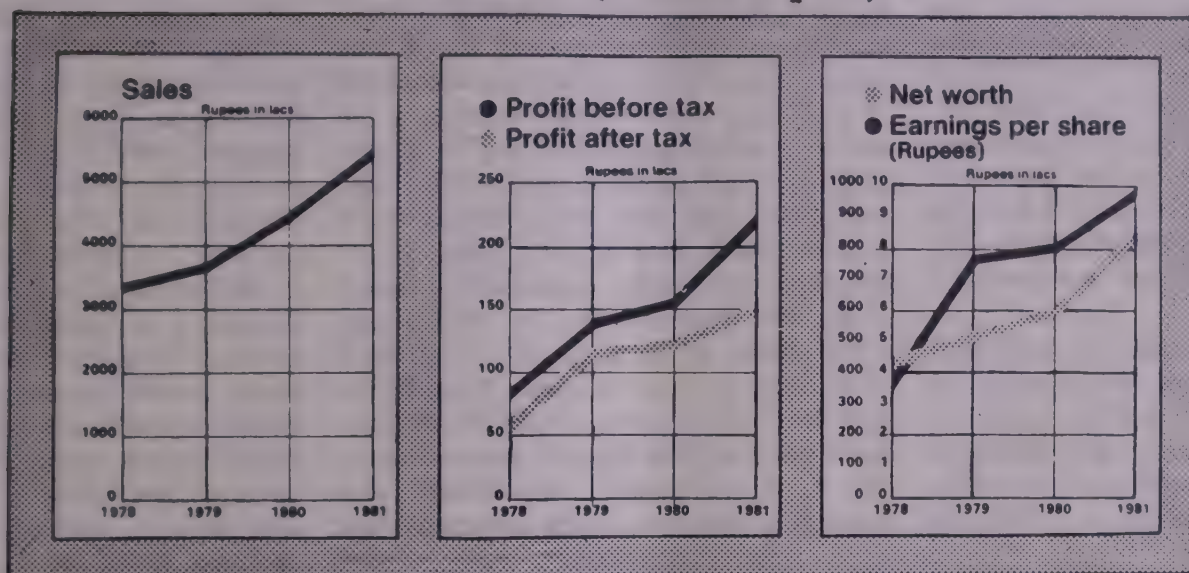
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Best & Crompton:

“Energy conservation engineering and development of new sources of energy are both being given high priority in our plans for the 80's.”

Chairman M K Kumar in his review of 1981.

Performance (in lakh rupees)



Profits up by 43% in one year

Other windows to the future

- “Recent trends in project engineering indicate that more and more customers require turnkey offers... Competition from international contractors is increasing each year. To successfully compete in such an environment, we have to upgrade our project management activities. This matter is receiving the highest priority.”
- “For ensuring long-term growth... a plan to upgrade technology by associating with international firms...”
- “In view of the increasing emphasis for self-reliance in defence requirements, we are expanding our production facilities to meet defence needs.”

- “Further steps to strengthen the capital base of the company and reduce dependence on short-term loans are now under consideration.”

Excerpts from the Chairman, Mr M K Kumar's review of the Company's performance in 1981.

Best & Crompton

Best & Crompton Engineering Ltd
29, Rajaji Salai, Madras 600 001

CORPORATE SECTOR

In the market

Asian Paints

Asian Paints (India) Ltd (Regd. Office: 'Nirmal', 5th Floor, Nariman Point, P.O. Box 1946, Bombay 400 021) is entering the capital market with a public issue of 11,45,926 equity shares of Rs 10 each at a premium of Rs 13 per share valued at Rs 263.56 lakhs (nominal value Rs 114.59 lakhs). The fully underwritten issue will open on August 16, 1982 and close on August 27, 1982 or earlier but not before August 18, 1982. The main object of the present issue is to broaden the company's ownership in order to fulfil the listing requirements of the recognised stock exchanges like Bombay, Ahmedabad, Delhi, Calcutta, Madras and Cochin. The proceeds of the issue will provide part finance required for the increased operations of the company. The tax rate will also go down as a result of the public issue.

A leading manufacturer of paints and enamels in the country, the company's product range covers a wide spectrum of surface coatings, catering to different end-users. Besides paints and enamels, the company manufactures synthetic

resins, varnishes, thinners, powders, etc. Besides, the company offers several other speciality products, against specific orders, to meet the needs of individual customers. The company has its manufacturing units at Bhandup (Bombay), Taloja in Maharashtra and Ankleshwar, a notified backward area in Gujarat. It has also established two joint ventures abroad — one at Fiji, which has been in operation for the last three years and another at Tonga, which has just commenced its production.

The company has an enviable performance record. During the last twenty years, sales have increased 42-fold from Rs 1.60 crores in 1961 to Rs 66.87 crores in 1981. A sustained growth in various other indicators has also been witnessed — a 27-fold rise in gross profits, a 25-fold rise in net worth and a 27-fold rise in gross fixed assets. Between 1961 and 1982, the company has rewarded the shareholders with eight bonus issues which have enabled a capital of ten shares of Rs 100 each in 1961 to multiply to 3,500 shares of Rs 10 each — a growth of 35 times in terms of value. In addition, over Rs 34,700 by way of dividends have been paid on this capital. According to Mr C.H. Choksey, chairman and managing director of the company, the

turnover in the first half of 1982 is up by 18 per cent as compared to that in the corresponding period of the previous year. The expectations are that the turnover during the whole of 1982 will cross the Rs 80-crore mark. The company's future prospects are very good.

Modi Alkalies

Modi Alkalies and Chemicals Ltd (Regd Office: SP-460, Matsya Industrial Area, Alwar 301 030, Rajasthan) will enter the capital market on August 2, 1982 with a public issue of 39,77,500 equity shares of Rs 10 each for cash at par totalling Rs 3.9775 crores. The issue is managed by the merchant banking division of the State Bank of India, will close on August 13 or earlier but not before August 5, 1982. Promoted by four companies of the Modi Group — Modi Industries, Modi Rubber, Modi Spinning and Weaving Mill Co and Modipon —, the company is setting up a Rs 26.70 crore project at Alwar, a notified backward area, to produce annually 33,000 tonnes of caustic soda, 16,400 tonnes of liquid chlorine, 10,000 tonnes of hydrochloric acid and 12,600 tonnes of stable bleaching powder calcium hypochlorite. The proposed issue will provide part of the funds to meet the cost of the project.

Mr Yogendrakumar Modi, vice chairman and managing director of the company, explaining salient points of the project, said that its unique feature would be incorporation of latest technology from M/s UHDE GmbH of West Germany that ensured least consumption of power. Being in the core sector, the project would have priority in supply of power during the times of power shortages. Implementation of the project was ahead of schedule and commercial production should begin in the first quarter of 1983. Mr Modi pointed out that the project would cater mainly to the northern region's need since there was a big gap between demand and supply of chlor-alkali products in that region.

Hilton Rubbers

Hilton Rubbers Ltd (Regd Office: Hilton House, S-23 Green Park Extension, New Delhi 110016) will enter the capital market on August 4, 1982 with a public issue of 4.40 lakh equity shares of Rs 10 each to be issued at a premium of Rs



Mr C.H. Choksey, chairman and managing director, Asian Paints (India) Ltd, explaining the salient features of the forthcoming equity issue at a press conference in Bombay.

Housewives!

Here's the answer to all your cleaning problems



TEEPOL

multi-purpose liquid detergent

TEEPOL—a world-class product used by women the world over

Teepol is a quality detergent formulation of Shell worldwide, which NOCIL (a Mafatlal-Shell Company) now brings to Indian housewives.

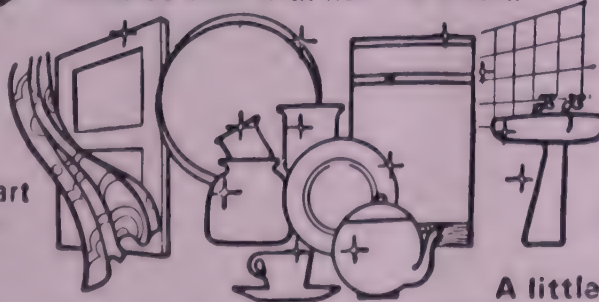


TEEPOL—drives dirt out faster
Teepol, being a liquid detergent, dissolves instantly in water. So you can start washing-up whatever you want right away.



TEEPOL—cuts grease instantly

Due to its powerful detergent action, Teepol wipes out every trace of grease. It cleans twice as well with half the effort.



TEEPOL—saves you money

Teepol is concentrated. You need to use only a little to do a great cleaning job.

TEEPOL—the versatile cleanser

It is the one liquid detergent that does the job of many. It cleans tiles, bottles, jars, windows, mirrors, woodwork, carpets, furnishings, dishes, cutlery, ovens, sanitary-ware and floors.

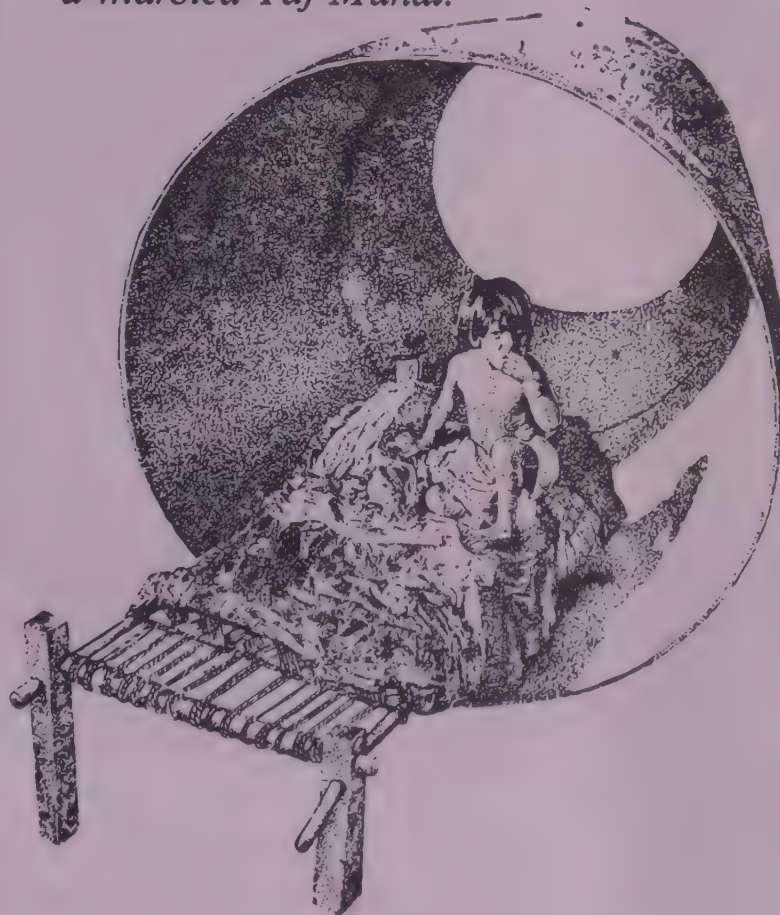


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NATIONAL ORGANIC CHEMICAL INDUSTRIES LIMITED
Mafatlal Centre, Nariman Point, Bombay-400 021.

A little TEEPOL does a lot of cleaning.

Ours is a Magnificent Land-1

*I sleep in the sewers
of my homeless cities.
But I have builded
a marbled Taj Mahal.*



*I hunger when famine
stalks the land.*

*But I have saved it
from plague and pox.*

*I taught my child
the arts of Science.*

*But I have seen him
forsake my shores.*

*I befoul my cities
because I will not plan.*

*But I have looked up
and discovered Quasars.*

*I see food hoarded
while my poor go hungry.*

*But I have made the
green revolution happen.*

*I never taught my children
to read nor write nor count.*

*But I have fathered
Nobel laureates.*

*I see my brother outraged
by my prejudice*

*But I have elevated him
to the highest office.*

*I flee from the farms
to the despair of my cities.*

*But I have held to the hope
of a hundred million jobs.*

*I was born to subsist
on a half-Rupee daily.*

*But I have died so my ashes
can enrich my loved India.*

*I am sad.
But I am glad.
I am.*

*Ours is a magnificent land.
We must build a
magnificent future. Think Ahead.*

Hoechst
HOECHST DYES & CHEMICALS LTD.



Dyes
Plastics
Intermediates
Refrigerants
Chemicals

share. The issue includes 80,000 shares offered for sale by Mr Ravi Khanna in order to enable the company to be listed on the stock exchange.

Mr Khanna, who is the joint managing director of the company, told newsmen that the company was well-established since 1971 in the manufacture of conveyor belts, transmission belts, fan/V belts and other rubber goods in its plant at Sonapat, Andhra Pradesh. It was now expanding by setting up a second unit at Barhkhalsa, Sonapat, with a view to raising its belt making capacity from 1,250 tonnes to 2,150 tonnes annually. The proposed issue would meet part of the total expansion cost of Rs 100 lakhs. The project was progressing rapidly and commercial production was expected to start before the end of this year.

The issue of shares is being managed by the merchant banking division of the Bank of India.

Other developments

Lakshmi Mills pay 12 per cent

Total turnover of the Lakshmi Mills Co. Ltd for the year ended March 1982 increased to Rs 50.45 crores from Rs 47.49 crores in the previous year. The net profit, after providing Rs 1.33 crores (Rs 1.74 crores) for depreciation and Rs 30 lakhs (Rs 1.35 crores) for taxation, was Rs 64.47 lakhs (Rs 2.26 crores). The equity dividend recommended for the year under review was 12 per cent.

Colour-Chem : Reduced dividend

Total sales of Colour-Chem Ltd for the year ended March 1982 increased to Rs 51.28 crores from Rs 50.07 crores in the previous year. The net profit, after providing Rs 2.49 crores (Rs 2.20 crores) for depreciation and Rs 89 lakhs (Rs 2.57 crores) for taxation, was Rs 1.54 crores (Rs 2.09 crores). The equity dividend recommended for the year under review was 4 per cent (15 per cent).

South Indian Bank : Deposits up

The South Indian Bank Ltd, Trichur (Kerala), has recorded significant progress in all spheres of its activities. Mr K.C. Joseph, chairman of the bank, told the annual meeting that the total deposits of the bank increased from Rs 124.58 crores in 1980 to Rs 150.13 crores in 1981, an increase of 20.50 per cent as against the annual growth rate of 17.40 per cent.

On account of the inflow of the deposits, the aggregate advances of the bank rose from Rs 70.82 crores to Rs 89.15 crores. Mr Joseph pointed out that the advances to priority/neglected sectors increased from Rs 22.60 crores to Rs 26.31 crores. The bank had always been actively trying to implement the new 20-point programme of the Prime Minister. The bank has made a net profit of Rs 7.78 lakhs after providing for the necessary provisions. The bank opened 6 more branches during 1981 raising the total number of branches to 263. It proposes to open three more branches shortly, one each in Bombay, Calcutta and Kerala.

Mahindra Ugin Steel Company: Drop in production

Mahindra Ugin Steel Company Ltd has suffered a drop in production and sales during the first five months of its operations in 1982. Sales amounted to Rs 21.30 crores as against Rs 25.19 crores achieved during the corresponding period of 1981. In terms of quantity, sales of finished alloy & special steels aggregated to 19,959 tonnes as against 26,879 tonnes sold during the first five months of 1981. This was disclosed by Mr Harish Mahindra, chairman, at the annual general meeting of the company. Mr Mahindra further stated that the reduction in production and sales is attributable to the current demand recession in the country in the key sectors, i.e., automobile, tractor, forging industries, etc. However, with certain credit relaxations announced recently by the Union Government, the company is hopeful of achieving higher production and sales during the remaining months of the current year.

As part of diversification of its activities, the company has explored the possibility of entering into the field of shipping.

Forthcoming company meetings

JULY 24 TO JULY 30

Orient Paper & Industries Ltd, Orient Club, Brajrajnagar, District Sambalpur, Orissa. (July 27, 2.30 p.m.)

Garware Nylons Ltd, Patkar Hall, S.N.D.T. Women's University, 1, Nathibai Thackersey Road, Bombay 400 020. (July 28, 3 p.m.)

Nawaratan Arts Ltd, 131, Cotton Street, Calcutta 700 007. (July 28, 3 p.m.)

Mangalore Chemicals & Fertilisers Ltd, Woodlands Hotel (P) Ltd, 5, Sampangi Road, Bangalore 560 025. (July 28, 11 a.m.)

Ranicherra Tea Co Ltd, 8, Court House Street, Calcutta 700 001. (July 29, 11 a.m.)

Chemo-Pharma Laboratories Ltd, Plot No. 5, M.I.D.C., Kalyan-Bhiwandi Road, Post Saravali, via Kalyan, District Thane. (July 30, 3 p.m.)

Kesar Sugar Works Ltd, Walchand Hirachand Hall, Indian Merchants Chamber Bldg, 76 Veer Nariman Road, Bombay 400 020. (July 30, 4.30 p.m.)

PUBLIC SECTOR

ECGS: Rs 17 crores paid as claims

Export Credit & Guarantee Corporation paid about Rs 17 crores as claims during the year ended December 1981. Out of this, an amount of Rs 16.17 crores was paid to exporters under policies. During the last three years the corporation paid claims worth Rs 31.13 crores for countries like Sudan (Rs 19.21 crores), Zambia (Rs 4.59 crores), Tanzania (Rs 4.24 crores), Zaire (Rs 1.76 crores), Ghana (Rs 78 lakhs) and Nigeria (Rs 55.72 lakhs). All these countries suffer from acute foreign exchange problems and have long waiting period before the amount is received in free foreign exchange. At the end of 1981, an amount of over Rs 13.24 crores was outstanding from these countries.

Claims due to insolvency and defaults by overseas buyers were largely from developed countries like the USA, the UK, West Germany, Denmark, Hongkong and Iran.

One of the important functions of the corporation is to provide guidance in recovering the dues from buyers and recover blocked amounts. Intensive efforts made by the corporation, helped to recover Rs 5.49 crores last year.

EQUITIES

THE WEEK'S PRICE RANGE

(Compiled by Commerce Research Bureau)

Squaring-up business

Bombay, July 19

In view of the worst-ever payment crisis on Dalal Street, the Bombay Stock Exchange (BSE) allowed only squaring-up business under the floor prices in six volatile leading scrips. Apart from floor prices, BSE also imposed 'hammer' prices with a view to facilitating the outstanding business. Fresh selling was not allowed and buying was purely on cash basis.

The payment crisis came to the fore on July 9 when a leading bull operator Mr Sumatilal Jamnalal, who is also a member on the governing board of the BSE, failed to honour his commitments in respect of the 17th account. Following his failure BSE had deferred the *havala* and *badla*. — both would have been done on July 8 and 9 respectively as per the original programme.

After failing to bring about an amicable settlement of the payment problem, BSE had declared Mr Jamnalal as a defaulter on July 12 and also Mr Chinubhai V. Shah. Although the exact amount involved in the 17th settlement was still not officially announced, it was presumed that it would be more than Rs 3 crores in the case of Mr Jamnalal. The amount due from Mr Shah was reportedly in the region of Rs 4 lakhs. Another sharebroking firm, Manmohandas Nemidas, was declared a defaulter by BSE on July 14. The amount was only Rs 40,000. BSE has now asked all member-brokers to furnish details of dealings in shares with the defaulters and any cash due to them. Those who have to pay to the defaulters were being urged to send their cheques to the clearing house and not to the defaulters. Most of the brokers sent their cheques and BSE could settle the 17th account on July 15. As a result, BSE could fix *havala* on July 15 and *badla* on July 16.

According to market circles, BSE authorities would face a major headache when the 18th settlement comes in for payment. The 'pay-in' is expected to be decided upon next week and then the question of 'pay-out'.

The restricted trading is expected to continue for some more weeks. In that case business is likely to go up in cash scrips. The cash shares remained friendless for the past two months. Over the whole list, including the cash, the bright spot was TELCO which spurted by Rs 24 to Rs 397 following the excellent working results for 1981-1982. This was followed by automobile shares.

'A' group equity shares

	Closing quotations 10-7-82	High	Low	Closing quotations 17-7-82
A.C.C. (100)	273.00	273.00	261.00	267.00
Ashok Leyland (10)	36.00	37.00	35.00	37.00
Ballarpur Ind. (10)	39.00	39.50	38.50	39.50
Baroda Rayon (100)	375.00	377.00	365.00	377.00
Bihar Alloy (10)	11.25	11.50	11.00	11.25
Bombay Dyeing (25)	64.50	66.50	62.00	66.50
Century (100)	825.00	800.00	800.00	800.00
Colgate (10)	83.00	83.00	81.00	83.00
E.I. Hotel (10)	19.00	19.25	18.75	19.00
Garware Nylon (10)	41.00	42.50	40.50	42.50
Guj. State Fert. (100)	415.00	412.00	400.00	410.00
Gwalior Rayon (10)	51.00	50.50	48.50	48.50
Hind. Alum. (10)	29.50	31.00	30.00	30.50
Hind. Lever (10)	48.75	49.50	48.25	49.50
Hindustan Motor (10)	25.50	26.50	25.25	26.00
Indian Dyestuff (100)	207.50	213.75	200.00	200.00
Indian Organics (10)	28.50	28.50	28.00	28.50
Indian Rayon	93.00	92.00	88.00	88.00
ITC Ltd. (10)	27.25	29.25	27.75	29.25
J.K. Synthetics (10)	59.00	59.00	58.00	59.00
Larsen & Toubro (10)	48.00	48.00	46.00	47.50
Mahindra & Mahindra (10)	40.00	43.00	39.00	43.00
Metal Box (10)	11.00	11.25	11.00	11.25
Modi Rubber (10)	26.00	28.00	26.00	27.50
Motor Industries (100)	230.00	245.00	227.50	245.00
MRF (10)	19.00	20.50	19.00	20.50
Mukand Iron (10)	25.00	25.50	24.00	25.50
National Organic (100)	174.00	175.00	172.00	173.00
Nirlon (10)	34.75	37.75	34.50	37.75
Premier Auto (100)	316.00	319.00	307.00	319.00
Reliance Textile (10)	142.00	142.00	138.00	140.00
Scindia (20)	13.00	13.00	12.25	12.75
Shriram Fibres (10)	44.50	46.50	44.00	46.50
Siemens India (10)	36.50	37.00	36.00	37.00
Sirpur Paper (10)	19.25	19.75	18.50	19.75
South India Viscose (100)	200.00	200.00	197.50	200.00
Southern Petro. (10)	12.65	13.00	12.50	13.00
Standard Mills (100)	304.00	320.00	300.00	306.00
Straw Products (10)	38.00	38.50	36.50	38.50
Swadeshi Mills (100)	141.00*	—	—	141.00*
Tata Chemicals (10)	49.00	49.50	48.00	49.00
Tata Eng. & Loco (100)	373.00	408.00	365.00	397.00
Tata Oil (25)	52.00	52.00	51.00	52.00
Tata Steel (100)	346.00	350.00	330.00	339.00
Volta (100)	235.00	237.00	232.00	237.50
Zenith Steel Pipe (10)	48.50	46.00	45.00	46.00
Zuari Agro (10)	20.50	20.50	19.50	19.50

'B' group equity shares

Ahmed Advance (100)	195.00	200.00	190.00	200.00
Ahmedabad Elec. (100)	108.00	—	—	108.00*
Alkali & Chem. (10)	15.25*	—	—	15.25*
Amar Dye-Chem (100)	121.25	121.25	120.00	120.00
Andhra Valley (100)	102.00*	103.00	102.00	103.00
Asian Cables (100)	132.50	132.50	131.25	132.50
Assoc. Bearing (100)	387.50	386.25	380.00	386.25
Auto Products (10)	10.00*	—	—	10.00*
Bajaj Auto (100)	1300.00	1300.00	1275.00	1275.00
Bajaj Elect. (100)	157.50	—	—	157.50*
Bayer (India) (100)	185.00	185.00	180.00	180.00
BASF (10)	32.50	34.50	33.00	34.00
Best & Crompton (10)	30.00	31.00	30.00	31.00
Bhadrachalam Paper (10)	13.25	—	—	13.25*
Bimetal Bearings (10)	26.50	—	—	26.50*
Blue Star (10)	42.75	33.00	32.50	32.50
Bombay Burmah (25)	37.50	37.75	37.25	37.75
Bombay Oxygen (100)	110.00	110.00	107.50	107.50
Bombay Suburban (100)	137.50*	137.50	137.50	137.50
Cadbury (10)	21.75	22.25	21.50	22.25
Camphor Allied (100)	170.00	180.00	170.00	180.00
Ceat Tyre (100)	195.00	—	—	195.00*
Central India Spg. (50)	42.00*	42.00	41.00	42.00
Century Enka (100)	610.00	600.00	600.00	600.00
Chemical & Fibres (10)	17.75	18.00	17.75	18.00
Colour Chem (100)	185.00	190.00	171.25xd	171.25xd
Corom. Fert. (10)	23.00	23.00	23.00	23.00
Crompton Greaves (100)	332.50	333.75	333.75	333.75
Cyanamid India (10)	25.00	26.00	25.00	26.00
Dawn Mills (50)	56.00	—	—	56.00*
Elecon Eng. (10)	26.00*	30.00	26.00	30.00
Empire Ind. (15)	17.00	—	—	17.00*

Ennore Foundries (10)	38.50	41.00	38.50	40.00
Escorts (10)	38.00	40.50	39.00	40.50
Ferro Alloys (100)	187.50	190.00	180.00	190.00
FGP (10)	14.75	15.00	14.75	15.00
Finlay (100)	75.00	—	—	75.00
Gammon India (10)	13.25	13.50	13.00	13.50
Garware Paints (10)	17.25	17.25	17.25	17.25
German Remedies (10)	35.25	36.50	35.50	36.50
Gokak (10)	13.50*	—	—	13.50*
Great E. Shipping (10)	14.00	14.75	13.75	14.75
Gujarat Alkali (10)	40.50	41.75	39.50	41.75
Gujarat Narmada (10)	10.00	12.25	10.25	12.25
Gujarat Steel Tubes (100)	270.00	270.00	265.00	265.00
Herdillia Chem (10)	20.25	—	—	20.25
Hind Brown (10)	258.75	—	—	258.75
Hind Ferodo (10)	33.00	33.00	32.00	33.00
Hindustan Sugar (100)	190.00	—	—	190.00
Hindustan Spg. (250)	165.00	165.00	160.00	160.00
Hoechst Dyes (10)	23.00	23.50	23.00	23.50
IDL Chemicals (10)	14.50	14.75	14.00	14.75
Indian Explosive (10)	20.00	—	—	20.00
Indian Hotels (10)	54.00	54.00	54.00	54.00
Industrial Cable (10)	30.00*	—	—	30.00*
Ingersoll Rand (10)	146.00	146.50	144.00	146.00
J. K. Cotton (10)	10.50*	—	—	10.50*
Jayant Paper (100)	130.00	—	—	130.00
Jyoti (10)	18.00	18.50	18.00	18.50
Kamani Eng. (10)	66.00	66.00	65.00	66.00
Khand. Ferro (100)	120.00*	—	—	120.00*
Khatau (100)	195.00	202.50	195.00	197.50
Kirloskar Cummins (100)	590.00	592.50	587.50	590.00
Kirloskar Oil (10)	19.00	19.50	19.00	19.50
Kohinoor Mills (100)	53.00	—	—	53.00
Laxmi Vishnu (100)	50.00*	—	—	50.00*
Madura Coats (10)	15.00	15.25	15.00	15.00
Mafatlal Eng (100)	95.00	97.00	90.00	96.00
Mafatlal Ind. (125)	300.00	300.00	297.50	300.00
Matatlal Fine (100)	162.50	160.00	156.25	160.00
Maharashtra Sugar (50)	36.00*	—	—	36.00*
Mahindra Ugine (10)	36.00	40.00	36.00	40.00
Morarjee (100)	185.00	—	—	185.00
Mysore Cement (10)	28.50	29.50	28.00	29.50
National Rayon (100)	330.00	—	—	330.00
New Gr. Eastern (100)	70.00*	—	—	70.00*
New Stand. Eng (100)	95.00	—	—	95.00
Otis Elevator (10)	27.25	—	—	27.25
Pfizer (10)	23.00	23.50	23.00	23.50
Phaltan Sugar (50)	26.00*	—	—	26.00*
Podar Mills (10)	5.25*	—	—	5.25*
Polychem (50)	52.00	52.00	52.00	52.00
Polyolefins Ind. (100)	257.50	260.00	257.50	260.00
Premier Const. (60)	88.00*	87.00	85.00	85.00
Raghuvanshi (100)	122.50*	—	—	122.50*
Rallis India (100)	166.25	165.00	162.50	165.00
Raymond Wool (10)	33.00	—	—	33.00
Rohit Pulp (100)	127.50*	—	—	127.50*
Sandoz (10)	25.50	25.50	24.50	25.50
Sandvik Asia (100)	296.25*	300.00	295.00	295.00
Saurashtra Cement (100)	132.50*	—	—	132.50*
Shri Dig. Cement (100)	212.00	212.50	205.00	205.00
Shree Niwas (100)	75.00*	—	—	75.00*
Shree Ram (100)	60.00	—	—	60.00
Simplex (50)	60.00*	—	—	60.00*
SLM-Maneklal (100)	142.50	142.50	142.50	142.50
Special Steels (100)	75.00*	—	—	75.00*
Stretch fibres (10)	8.00	8.25	8.25	8.25
Surat Electric (100)	104.00*	—	—	104.00*
Swadeshi Polytex (10)	14.50	14.75	14.50	14.75
Swan Mills (100)	125.00	130.00	125.00	130.00
Synthe & Chem (100)	71.00	72.00	70.00	70.00
Tata Hydro (100)	109.00	109.00	108.00	108.00
Tata Mills (25)	19.00	19.00	18.00	18.00
Tata Power (100)	111.00	—	—	111.00
Tata Yodogawa (100)	122.50	127.50	122.50	127.50
Tata Finlay (10)	10.50	11.00	10.00	10.75
Texmaco (10)	40.00*	—	—	40.00*
United Carbon (100)	155.00	155.00	145.00	145.00
Vulcan Laval (10)	26.50	26.50	26.00	26.50
Walchand Nagar (10)	25.00	25.50	25.00	25.50
Warner Hind. (10)	22.00	22.00	21.75	21.75
West Coast Paper (100)	90.00	—	—	90.00
Wimco (10)	10.75	10.75	10.50	10.60

Notes: Figures within brackets indicate the paid-up value of shares
xd = Ex-dividend
cd = Cum-dividend

(a) An asterisk mark after the quotation indicates the closing price of the last official trading and not of the date indicated in the column.
(b) The dash (—) in the columns for 'High' and 'Low' means that no official trading in the shares had taken place during period under report.

xr = Ex-right

cr = Cum-right

Market Gossip

Umbrella-makers hit

ABOUT 100 umbrella-makers in Calcutta and near-by areas have been particularly hit by the strike at Century Mills in Bombay. The seven-month-old strike has resulted in the shortage in the supply of umbrella cloth. The preference for Century's umbrella cloth is due to the fact that the black colour in the cloth sticks for a longer time while the cloth manufactured by other mills loses the brightness of black colour. This is attributed to the use of aniline dyes by Century Mills and the use of sulphur dyes by other mills. There has been an inevitable rise in the prices of umbrellas. The situation could have been much more acute but for the virtual absence of the monsoon over large areas of the country for so many weeks. Calcutta, while no longer the premier centre for making umbrellas, still remains an important manufacturing centre next only to Bombay. Umbrella manufacturing is a seasonal occupation spreading over five months till the middle of July and the shortfall in production has thus adversely affected most of the umbrella-makers.

Boosting engineering exports

LEADING engineering producers, which now do not export anything, have only nominal exports, will designate part of their production as "for exports" exclusively. This was agreed upon at a meeting of heads of 25 firms with senior government officials in New Delhi on July 17. The Union Commerce Secretary agreed with the suggestion that in order to make the final export prices competitive in the international market the Indian producers ought to get supplies of required raw materials at reasonable prices and that the canalising agencies could reduce their import prices of commodities required for export production. He urged the producers to set up an export cell to prepare short-term and long-term export plans. The exporters wanted the cash compensatory support scheme to be valid for five years at a time instead of three years as at present.

The Engineering Export Promotion Council (EEPC) proposes to hold two conferences — at Tokyo and Dusseldorf — to promote exports. The conference in Japan, due to be held on August 25, is expected to be attended by 173 delegates from 102 Japanese firms and 109 delegates from 88 Indian firms. The first-ever conference at Dusseldorf is to be held in November.

Reserve Bank to help fertiliser industry

MR S.P. Mukherji, secretary, agriculture and cooperation, Government of India, has stated that the specific problems of the fertiliser industry and distribution channels would be considered by the Reserve Bank of India which would provide solutions to the same. The Government could not view with indifference any let-up in the consumption of fertilisers which would result in a shortfall in food production with adverse effect on the economy as a whole, he said.

Opposition to Chit Fund Bill

THE Chit Fund Foremen have opposed the bill on chit funds, awaiting Parliament's approval. The bill stipulates furnishing by foremen 100 per cent of the chit value as security at the time of obtaining previous sanction from the chit registrar. The foremen say this would block their funds unproductively over a considerable period. The foremen want the stipulation on security deposit to be made effective from the date of commencement of business rather than from the date of permission to start the chit fund.

Government to regulate emigration

THE Government of India would soon introduce a bill empowering itself to regulate the work of the recruiting agents who export labour. Steps already

taken by the Government to prevent exploitation and cheating of workers include publication of pamphlets detailing the living and working conditions in various countries of the Gulf region in West Asia along with the minimum expectation of wages and peculiar features of the labour laws of those countries. Over the ten-month period ending with June 1982 the Government had received 158 individual complaints of alleged exploitation, breach of contract and non-payment of dues.

Tea cultivation in UP

THE Tea Board at its recent meeting at Dibrugarh is understood to have decided to set up a tea research centre at Dehra Dun to undertake collaboration programmes on the promotion of tea cultivation in Uttar Pradesh jointly by the Council of Scientific and Industrial Research (CSIR) and the Tea Board under the technical guidance of the Tocklai Research Station.

Decentralised direct financing

THE Industrial Development bank of India (IDBI) has decided to decentralise its direct finance operations. The southern regional office of the bank at Madras has already been upgraded and commenced handling the work relating to projects costing upto Rs 5 crores located in the southern region.

The bank's northern regional office at New Delhi will be upgraded and placed under the charge of a general manager with effect from July 1, 1982. The bank will transfer from its head office in Bombay to its northern regional office the work relating to processing of applications for direct financial assistance, disbursement, follow-up and supervision of projects costing upto Rs 5 crores located in the northern region, i.e. Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh and the Union Territory of Delhi. The arrangement will cover operations like project finance, modernisation assistance, soft loans etc.

COMMODITIES

Cotton prices steady

Bombay, July 19

Quietly steady conditions prevailed on the spot cotton market in Bombay during the past week with indifferent mill demand. The resumption of monsoon tended to act bearishly on the market. Cotton circles, however, are still anxious about the progress of the monsoon in the next few weeks before gaining confidence about the statistical position of cotton.

In the wake of the presidential election the announcement that the Prime Minister was willing to hear the grievances of the striking mill workers was the only notable development during the week. Soon, it was also made clear that the authorities were not willing to hold any talks with any unrecognised trade union leader. Thus, there was status quo ante and the strike situation was back to square one. Be that as it may, speculative stories about somehow breaking the deadlock have been hitting the headlines repeatedly.

Meanwhile the future of the monopoly procurement scheme in Maharashtra is in a state of suspense following the Reserve Bank of India's reported decision not to extend any financial support.

The Cotton Corporation of India is saddled with an unsold stock of over ten lakh bales and the Maharashtra State Cooperative Marketing

Federation over fifteen lakh bales. These stocks will continue to exert a bearish pressure on the market.

The following has been the trend of prices of some of the leading varieties.

Cotton varieties	(Rs per candy)	
	July 16	July 9
Digvijay	4,400-4,500	..
Kalyan	3,600-3,750	3,700-3,850
Saurashtra CO2	3,700-3,900	3,800-4,000
Maharashtra H4	4,800-4,850	4,850
Maharashtra Y1	..	4,400
Maharashtra Varalaxmi	4,800	4,800
Maharashtra 1007	4,650-4,700	4,700
Maharashtra L147	4,350	4,350
MP Y1	4,100	4,200
MP A 5/19	4,400-4,450	4,400
MCU 5 Guntur	5,300-5,500	5,400-5,450

Groundnut oil moves up

Bombay, July 19

Groundnut oil moved up following reports that the monsoon was weak and still elusive in groundnut producing places. The price looked up by Rs 1.56 to Rs 142.48 per 10 kg. Groundnut Karad bold, Saurashtra bold and Saurashtra quality held the ground at Rs 615, Rs 620 and Rs 620 per 100 kg, respectively, on lack of selling pressure. Sellers were watching the behaviour of the monsoon.

Castorseed and its oil showed divergent trend, with the former losing ground and the latter gaining. Castorseed Madras small and Kanpur bold

dropped by Rs 4 each to Rs 342 and to Rs 332 per 100 kg respectively. Castor commercial oil edged up by a rupee to Rs 74.50 and BSS oil by 75 paise to Rs 80.50 per 10 kg in view of the hardening trend in groundnut oil.

Linseed bold remained unchanged at Rs 460 per 100 kg on lack of demand but its oil rose by Rs 3.80 to Rs 113 per 10 kg mainly because the other oils showed an uptrend.

Cakes were neglected on slack demand.

Comparative prices in rupees per quintal of seed and per 10 kg of oils:

	16-7-1982	9-7-1982
G. nut Karad bold	615.00	615.00
G. nut oil	142.48	140.92
Cast. Md. Sm.	342.00	346.00
Cast. oil com.	74.50	73.50
Cast. oil BSS	80.50	79.75
Linseed bold	460.00	460.00
Linseed oil	113.00	109.20

Sugar firm

Bombay, July 19

Sugar prices displayed firmness in the local market during the past week. The price of sugar C-30 grade recorded an increase of Rs 8 per quintal to Rs 536-545 per quintal. Local stockists were hesitant. Demand from upcountry centres was good because of dry weather conditions there. The state cooperative factories quoted higher prices on account of lower allotments. The sugar stocks at the weekend were placed at 5,532 bags as against 4,411

HOW COMMODITIES MOVED

Commodity	Market	(Rs per quintal*)	
		July 17, 1982	A week ago
Groundnut	(Rajkot)	467	467
Rapeseed	(Kanpur)	383	383
Sesamum	(Delhi)	703	683
Castorseed	(Kanpur)	285	285
Linseed	(Kanpur)	436	436
Sugar	(Bombay) (a)	541	533
Cotton	(Bombay) (b)	3,175	3,175
Jute	(Calcutta) (c)	245	245
Aluminium	(Bombay) (d)	1,605	1,600
Copper	(Bombay) (e)	2,990	2,970
Lead	(Calcutta) (f)	1,040	1,150
Zinc	(Calcutta) (g)	1,670	1,680
Gold	(Bombay) (h)	1,645	1,620
Silver	(Bombay) (i)	2,575	2,550
Caustic soda	(Bombay) (j)	603	603
Soda ash	(Bombay) (k)	238	250

* In terms of 10 gm for gold, kg for silver and candy for cotton
(a) C-30, (b) C-73, (c) W-5, (d) Scrap, (e) Wire bar, (f) Ingot, (g) Hard spelter, (h) Standard, (i) .996, (j) Flakes, and (k) Tata

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in the previous week. The price of C-30 grade sugar on July 17, 1982 was lower by Rs 72 per quintal than on the corresponding date a year ago.

Yarn gains

Bombay, July 19
A steady to rising trend was noticed in the local yarn market during the past week. The prices of 150D NRC, 100D NRC and 120D CR increased by 55 paise, 42 paise and 55 paise to Rs 55.07, Rs 58.24 and Rs 58.92 respectively. The prices of 150D CR, 100D CR and 150D acetate, however, remained unchanged at Rs 54.23, Rs 68.28 and Rs 49.01 respectively.

Grains firm

Bombay, July 19
Trading in grains was marked by firmness due to sluggish inflow.

In cereals, wheat prices moved up but arrivals were poor. Inflow was mainly from Gujarat. Demand from the north was good. The price of Sehori Pissi wheat rose by Rs 3 to Rs 280-350 per quintal. The Sonakalyan variety spurted by Rs 10 to Rs 215-220 per quintal. The undertone was firm.

Activity in rice was modest. Supplies were comfortable. The Surti variety ruled steady at Rs 350-400 per quintal. The Basmati variety

recorded an increase of Rs 12 to Rs 750-850 per quintal.

In coarse grains, trading was nominal. Jowar eased by Rs 5 to Rs 150-215 per quintal. Inflow of both jowar and bajra was negligible. Bajra ruled steady at Rs 170-260 per quintal, barley at Rs 95-100 per quintal and maize at Rs 162 per quintal.

In pulses, barring urad/all other pulses firmed up during the week due to poor inflow and higher advices at the producing centres. Gram dal fetched Rs 25 more at Rs 360-375 per quintal. Arrivals were hardly 400 bags per day. Supplies from Maharashtra and Madhya Pradesh were absent. Tur dal flared up by Rs 95 to Rs 500-650 per quintal. Moong (chumki) was quoted Rs 30 higher at Rs 380-400 per quintal.

Jute goods recede

Jute goods in the Calcutta gunny market suffered a fresh jolt during the past week reflecting renewed selling on a market devoid of interest. Buyers, both on overseas and domestic account, remained out of the market and as a result sellers predominated providing for a marked recession in prices of both hessian and sacking constructions.

Export of jute manufactures have been notably restricted by various trade

(tariff and non-tariff) barriers in some industrialised countries. Despite progressive liberalisation, there remain significant tariff obstacles in the jute sector which generally increase with the stage of processing from yarn to fabrics with raw jute entering duty-free.

In few cases, however, the MFN (most-favoured-nation) duty rates for jute products are nil. Thus the phenomenon of tariff escalation with the effective rates of protection exceeding nominal rates persist in the case of jute goods as in the case of processed agro-based products in general. What is particularly striking is that discriminatory treatment has been meted out to Indian exports of jute goods to the USA. For instance, the imports of jute yarn under the country's GSP (introduced as late as January 1976) were allowed duty free entry except in the case of yarn imported from India.

Gold and silver increase

Bombay, July 19
A rise in prices of both gold and silver marked trading in the Bombay bullion market during the past week.

Standard mint gold opened at Rs 1,620 per 10 gms and closed higher at Rs 1,645 per 10 gms. Ready silver (.999 fineness) opened at Rs 2,555 per kg and closed higher at Rs 2,575 per kg.

Bank credit contracts

Bombay, July 21
Bank credit of all scheduled commercial banks, contracted by Rs 41.20 crores to Rs 30,403.50 crores during the week ended July 9, 1982. Aggregate deposits increased by Rs 302.48 crores to Rs 45,831.36 crores. The balances of banks with the Reserve Bank of India (RBI) increased by Rs 168.52 crores to Rs 4,942.33 crores and their borrowing from the RBI by Rs 18.07 crores to Rs 589.84 crores.

Money easy

Bombay, July 19
Conditions in the Bombay short-term money market were easy during the past week. Interest rates opened at four per cent and dropped to the week's low of 3.5 per cent during the week. However, the rates firmed up once again to close at six per cent.

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केवल १७० रुपये में खुदका रोजगार महाराष्ट्र राज्य लाटरी की टिकटें बेचिए

आप बेरोजगार हैं! क्या आप अपने खाली समय में कुछ अधिक पैसे कमाना चाहते हैं, तो आप इस अवसर का लाभ अवश्य उठाइये. प्रत्येक शुक्रवार के मुख्य निकाल, हर महीने के दूसरे शुक्रवार को होने वाले मासिक मध्य निकाल और दिवाली या गुड़ी पाड़वा को होनेवाले 'सुपर बंपर ड्रा' की तया हररोज होनेवाले 'मिनी लाटरी ड्रा' की टिकटें हमसे खरीदें.

तुरंत कमीशन

मुख्य, मध्य और सुपर बंपर लाटरी की टिकटों पर १५ प्रतिशत तथा मिनी लाटरी की टिकटों पर १० प्रतिशत कमीशन आपको तुरंत दिये जायेंगे. उदाहरणार्थ, १७० रुपये देकर आप २०० रुपये की मुख्य, मध्य व सुपर बंपर लाटरी की टिकटें तथा १० रुपये देकर १०० रुपये की मिनी लाटरी की २०० टिकटें खरीद सकते हैं. आपको कम से कम २०० टिकटें खरीदनी पड़ेंगी. यदि उससे अधिक टिकटें खरीदना चाहें, तो कम से कम १०० टिकटों की एक पुस्तक के आधार पर अधिक टिकटें खरीद सकते हैं.

संपर्क: अल्पवचन व लाटरी संचालनालय.

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INDIAN ECONOMY : BASIC INDICATORS

By COMMERCE RESEARCH BUREAU

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	June 26, 1982	During the week ended			Week	Percentage variation over			
		June 19 1982	May 29 1982	June 27, 1981		Month	Year	Two years	
Manufactured products	271.7	271.1	266.4	276.8	0.2	2.0	-1.8	7.4	
Primary articles	273.5	270.5	263.9	260.9	1.1	3.6	4.8	19.4	
Fuel, power, lubricants, etc. .. .	446.5	446.5	446.5	401.0	—	—	11.3	26.6	
All commodities	287.2	285.7	280.6	280.7	0.5	2.4	2.3	14.2	

Money and Banking

	July 2, 1982	During the week ended			Week	Percentage variation over			
		June 25, 1982	June 4 1982	July 3, 1981		Month	Year	Two years	
Money supply (M3) (b)	65,465(a)	65,282	64,613	58,550(a)	0.3	1.3	11.8	33.0	
Bank credit	30,445	29,988	30,041	26,966	1.5	1.3	12.9	36.3	
Aggregate deposits	45,529	45,425	44,641	40,562	0.2	2.0	12.2	36.5	
Foreign exchange reserves (a) .. .	3,803	3,803	3,836	4,808	—	-0.9	-20.9	-28.2	

MONTHLY INDICATORS

	Unit	Latest month Month	Amount/ Index	Previous month	Percentage variation over previous month	Recent trend (per cent)(c)
Industrial production (crude index) ..	1970=100	May 1982	163.7(a)	165.0(a)	-0.8	12.5
Electricity generation (public utilities) ..	Million kwh	May 1982	10,603	10,652	-0.5	5.1
Exports	Rs crores	January 1982	506	502	0.8	—
Imports	Rs crores	January 1982	919	1,131	-18.7	—
Trade balance	Rs crores	January 1982	-413	-629	—	—
Foreign exchange reserves (a)	Rs crores	June 1982	3,803	3,987	-4.6	-19.7
Wholesale price index	1970-71=100	June 1982	284.9	277.8	2.6	0.7
Consumer price index for industrial workers	1960=100	May 1982	462	459	0.7	7.1
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	January 1982	179.3	178.4	0.5	9.7

ANNUAL INDICATORS

	Unit	1981-82 (CRB estimates)	1980-81	1975-76	1950-51	Percentage variation in 1980-81 over 1979-80	Annual rate of growth (%) between 1975-76 and 1980-81
Population	Crores	69.1	68.4(d)	60.4	35.8	3.2	2.2(e)
Gross National Product (at market prices) ..	Rs crores	1,38,000	1,25,744	73,907	9,503	17.5	11.2
Per capita GNP (at market prices)	Rupees	1,997	1,855	1,224	265	14.9	8.7
Real national income (Index)	1970-71=100	144.1	137.9	117.1	48.9	7.7	3.3
Real per capita income (Index)	1970-71=100	112.6	109.9	104.9	73.6	5.3	0.9
Agricultural production (Index triennium ending)	1969-70=100	139.3	135.2	124.8	58.5	15.4	1.6
Foodgrains production	Million tonnes	135.0	130.0	121.0	55.0	18.2	1.4
Industrial production (Index)	1970=100	166.3	154.0	119.7(f)	26.5(f)	4.0	5.2
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.0	30.0	18.6	0.18	0.7	10.0
Electricity generation (public utilities) ..	Billion kwh	122.9	111.6	79.2	5.3	6.7	7.1
Exports	Rs crores	—	6,709	4,043	601	3.9	10.6
Imports	Rs crores	—	12,484	5,265	650	38.4	18.6
Trade balance	Rs crores	—	-5,775	-1,222	-49	—	—
Foreign exchange reserves*	Rs crores	3,797	5,316	1,702	911	-6.8	25.6
Money supply (M3) (b)*	Rs crores	62,281	55,445	22,286	2,336	18.5	20.0
Bank credit*	Rs crores	29,599	25,371	10,877	547	17.8	18.5
Aggregate deposits*	Rs crores	43,750	37,988	14,155	881	19.6	21.8
Wholesale price index (average)	1970-71=100	280.2	257.3	173.0	47.5	18.2	8.3
Consumer price index for industrial workers*	1960=100	457	420	286	—	12.6	8.0
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	—	162	93	—	13.3	11.7

NOTES: (a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year (d) As on March 1, 1981 as revealed by 1981 Census. (e) Between 1971 Census and 1981 Census (f) Figures relate to 1975 and 1950 respectively * Financial year-end data ** Calendar year-end data (—) = Nil or negligible (..) = Not available

Goa : Challenge of development

by J. C. ALMEIDA

UNLIKE commercial banking, development banking has a dual function—one of a development agency and the other of a bank.

Over the years largely due to a number of policy measures by the government, there has been a major shift from purely banking function to that of developmental agency to meet socio-economic objectives. Today development banks play a promotional and developmental role for regional growth and catalyse capital formation. Therefore essentially they are in the business of development. For the purpose of clear perception this objective could be confined to industrial development and due regard could be given to various developmental phenomena linked with or emanating from industrial development.

The essence of industrial policy is regulated growth of industrial sector and therefore a planning for the future evolves one of the most essential requirements at macro and micro levels. In a developing economy like ours, investment opportunities are limited and capital is scarce. Hence optimum utilisation of the resources taking utmost benefit from the opportunities poses the greatest challenge.

However, planning at the development bank level remains short term as development banks form part of the entire macro level planning machinery of the government. Apart from planning the development banks implement the government policies and schemes at micro level and therefore the planning to manage, grow, diversify, develop and perform has to be flexible.

The planning in development banks involves planning the tasks, structure, resources and technique. These banks have the task of delivering socio-economic benefits while remaining operationally profitable.

The structure relates managerial capacity and technical expertise to operate professionally. The structure should

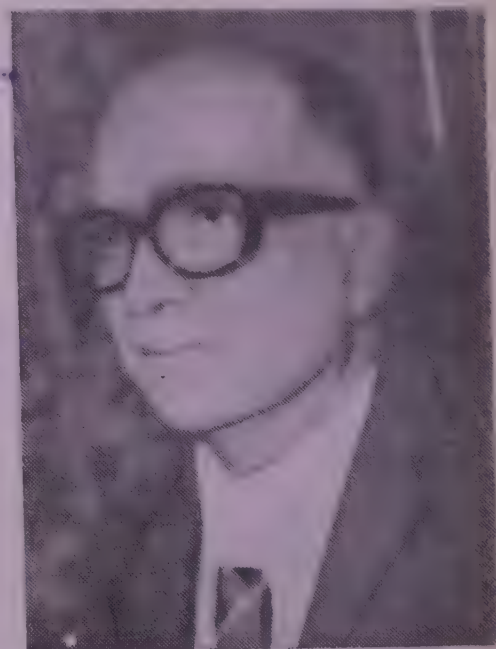
Dr Almeida is chairman and managing director of the Economic Development Corporation for Goa, Daman and Diu.

allow the banks to act as entrepreneur by way of initiating and participating in the management of assisted industrial projects, joint sector and subsidiary companies and rehabilitated sick industries. The long term financing itself implies participation in the formation of enterprise, as developmental obligation is catalysing enterprise formation.

However, the resource constraints force the development banks to be selective in capital formation while discharging merchant banking function. The banks have also to cater to a broad spectrum of entrepreneurs to meet the policy of decentralised industrial structure.

Last but not the least one has to adopt a particular technique or strategy. The most suitable strategy for an underdeveloped region could be aggressive marketing strategy suitably blended with service strategy.

The territory of Goa, Daman and Diu joined the national mainstream quite late, this factor and the constraints of natural resources have made the task of development a challenge. The territory is very small. However, going by 'Small is Beautiful' this weakness could be



Dr J. C. Almeida

viewed as a strength as there has not been a haphazard growth of industries and the virginity of the territory allows planned development of the region. Similarly lack of infrastructure such as captive power generation opens up opportunities for setting up power projects not only for public sector but also for the private entrepreneurs. The congestion at Bombay port adds to the problems of any export oriented industry to be set up in this region. However, it induces us to ponder upon the possibility of developing the Mormugao port and conversion of the railway serving Goa into a broad gauge line.

The 80's will witness a boom in exports which will throw up opportunities for establishing large number of export-

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oriented industries. With the increasing size of the automobile industry the scope for promoting a group of ancillary units/increases. This will create a base for engineering industries. Mining may not remain at the forefront by the end of the decade and large industrial houses, which have a base in this territory—and are mainly engaged in mining, will diversify into various industrial projects. The lumpy ore excavated from the mines over the years has piled up because it does not have a market. This increasing threat could be converted into an opportunity for promotion of sponge iron plant or integrated steel plant. The proximity of the off-shore oil resources will enhance the possibility of this venture because natural gas could be one of the major inputs for this project.

Increasing tourism will lead to rapid growth of hotel and allied industries pro-

viding employment to a large section of the society. Tourism itself should compel the policy makers to avoid promotion of any pollution-prone industry. However, whatever is lost by giving up such projects would be recovered by giving boost to industries which do not tolerate any kind of environmental pollution. The pharmaceutical, electronics and food processing industries will get a lot of encouragement. The electronic industry will bring in high technology and this territory will be able to participate in the revolution of transition from basic industry to high technology industry.

A trend will set in only to promote complementary industries, either large or small, regardless of their size. The fact that large and small industries are inseparable and survive mutually will be recognised. Attention may be focussed

most on joint sector projects as they assume special significance for the development of backward areas. The joint sector project mobilises resources from public and private sectors. Private investment can be attracted even for low return and high gestation period projects in the joint sector. Of course, the project necessarily should be profitable but projects which are labour-intensive and having ancillary potential could be given priority.

The emphasis will shift from purely commercially profitable industries to socially beneficial and also economically viable projects.

To achieve these targets organisations will be strengthened. It is hoped that competitive trends will be fair and just, economic trends suitable, technological trends predictable and socio-political trends conducive to development.

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Catalytic role of EDC

By P. DESHPANDE

INDUSTRY has made a phenomenal progress in Goa in the course of last 8 to 10 years and the credit to some extent at least goes to the two premier development organisations, namely, the Economic Development Corporation of Goa, Daman & Diu Limited (EDC) and the Goa, Daman & Diu Industrial Development Corporation (GDDIDC). We have now in Goa a large number of industries in small, medium and large sectors and they are producing a variety of goods, ranging from adhesive tapes, canvas shoes, fishnet twine, auto components, pharmaceuticals and antibiotics, hearing aids to wrist watches and TV sets. In fact, industry's contribution to the domestic product of our territory has grown steadily from 9.4 per cent in 1970-71 to 28 per cent in 1980-81. During the same period contribution from mining has declined from 11 per cent to less than 7 per cent. Obviously, industry appears to have come to occupy a relatively more important position than mining in our territory.

A number of public sector enterprises in Goa which have been set up under the umbrella of the EDC during this period are making a good contribution to the industrial development of this territory. Their role in the industrial development of Goa can be considered in two main dimensions: (a) Development role, and (b) Business role.

Development role

The GDDIDC, set up in 1966, is playing a major development role by providing infrastructure facilities and setting up industrial estates in various parts of the territory. The EDC, set up in March, 1975, is carrying out a very important development activity by promoting and financing a number of industrial units in the territory. A similar promotional role is also being played by Goa Handicrafts, Rural and Small Scale Industries Development Corporation Limited, a subsidiary of the EDC, which is not only promoting the production and sale of handicrafts but also assisting in the acquisition of raw materials as well as sale of products of small scale industries.

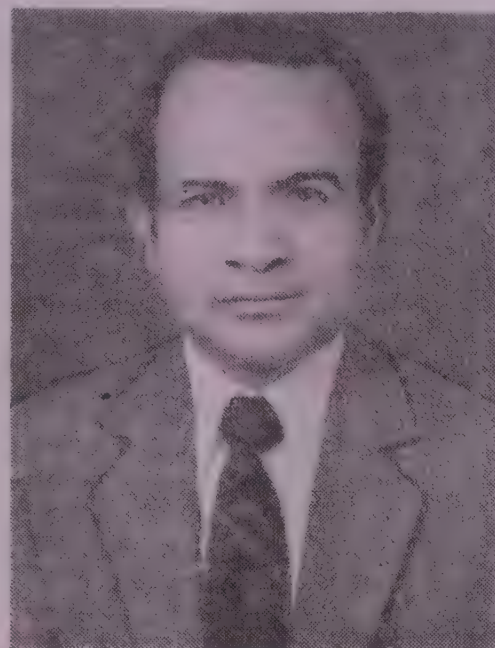
Dr Deshpande is joint managing director of the Economic Development Corporation of Goa, Daman and Diu and also chief executive officer of Goa, Daman & Diu Industrial Development Corporation.

The three public sector institutions noted above are thus taking care of—

1. infrastructure facilities,
2. financial assistance,
3. marketing assistance.

Business role

During the same period a number of other subsidiaries and associate com-



Dr P. Deshpande

panies have also been set up and they are playing the business role by manufacturing and providing goods and services. The Goa Time Movers Limited is assembling hand wound wrist watches in collaboration with HMT, Bangalore. The Goa Electronics Limited is producing telephone coils for the Indian Telephone Industries (ITI), Bangalore and Rae Bareilly and also assembling TV sets for Electronic Corporation of India Ltd (ECIL), Hyderabad. Goa Auto Accessories Limited will be assembling auto parts in technical collaboration with TELCO while the Automobile Corporation of Goa Limited, another unit set up by the EDC jointly with TELCO, will have a wide product range for assembly of auto components. The Goa Antibiotics and Pharmaceuticals Limited a unit being jointly set up by the EDC and Hindustan Antibiotics Limited, (HAL), another Government of India undertaking will be producing different pharmaceutical formulations. The unit is likely to go into production very shortly. All these units have been set up in different

parts of the territory maintaining the much required balance in the industrial development of the territory.

This, however, does not mean that we have been doing very well in all the sectors. Although we have been able to make headway in pharmaceutical and engineering industries, all our efforts to develop electronic industries rapidly, have not been quite successful so far, mainly due to the absence of a good large electronic mother unit in this territory. A large nucleus plant preferably in the defence electronics or avionics will greatly accelerate the pace of development of electronic industry in this territory. The development and manufacture of small electronic components and equipment, requires well equipped testing facilities. Since small units cannot afford such expensive testing facilities on their own, they need be made available to them quickly. In order to develop a viable small scale industrial base for the electronics industry, it is necessary to create facilities for consultancy and research and development. Public sector projects such as the ones suggested above, producing electronic equipment, will be able to provide such facilities to small scale units.

Our experience has been that the benefits, such as capital subsidy etc., available to our territory because of having been declared as a backward area are being wiped out by the extra incidental expenditure involved because of lack of adequate telecommunication facilities in the interior and inadequate air, rail, road and sea transport systems. Mere provision of incentives will not promote a healthy industrial development. What is also required is good infrastructural facilities. Land, building, power and water and capital are adequately provided in this territory. The power supply problem has to be permanently sorted out, if possible, by setting up our own generating capacity. The other main factor which is seriously affecting the development of industries in our territory is absence of some important incentives such as sales tax interest free loan (this has however been introduced recently), interest rate subsidy, Central sales tax exemption, etc., which are available in the neighbouring states. It is very essential that the incentives offered in this territory are at least on par with the incentives and benefits available to entrepreneurs in the backward areas of the neighbouring states.

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Seven years of industrial progress

By A. V. PALEKAR

A section of the factory of Sterling Magnetics Pvt Ltd, at Sancoale Industrial Estate, Zuarinagar.

FOR a very long period, the main economic activity of the Union Territory of Goa, Daman and Diu has been the mining and the export of iron ore and manganese ore. Substantial finance and labour is presently involved in this activity. It is known to all and agreed upon by all that the mining activity from Goa is slowly shrinking, may be due to the fact that resources are slowly depleting, the concentration of ores is on decline or share in the export market is cut as other nations have joined in the competition. It is, therefore, necessary to take up activities which can take care of the stoppage of mining activity. There would be no two opinions that industrial development of the territory is the only alternative to the mining activity.

One is proud that the literacy in this territory is very high and ranks only second or third in the country. Consequently, the territory turns out hundreds of graduates in science, engineering, arts, commerce, pharmacy, etc and many more of matriculates every year. The government is therefore trying to absorb them in the various schemes proposed to reduce unemployment. Industrial development is perhaps the only activity which can employ the maximum youth.

We have one of the finest natural harbours at Mormugao. It is a known

fact that the economy of all the harbour towns in the world has been industrial. Unless there is sufficient industrial development the harbour may not be used to its capacity and there would be no justice to its economy. It is, therefore, clear that for the economic growth of the territory, industrial development has to be given prime consideration. Of course we cannot neglect the other economic activities like tourism, agriculture and fishing. Hence the industrialisation has to be so planned that it grows without adversely affecting the other economic sectors.

Right perspective

To plan industrial development in the right perspective it is essential to identify the contributing factors and the limiting factors.

The contributing factors are :

1. An excellent natural port which is being developed further (Economy of all port locations all over the world has been industrial).
2. Well developed infrastructure in terms of sea port, airport, railway, roads, water ways, telecommunication facilities, etc.
3. High level urban development in terms of hotels, hospitals, recreation facilities, piped water, supply, power sub-stations, etc.
4. Commercial services like banking, insurance, companies, trans-

port and shipping agencies, active Goa Chamber of Commerce and Industries, etc.

5. Educated and skilled labour.
6. Peace on labour front.
7. Only industrially backward area with high urban amenities.

The limiting factors are :

1. Absence of consumer market.
2. Absence of industrial market.
3. Lack of own power generation (The assurance of Union Government to provide 200 mva of power from the central grid may do away with this difficulty).
4. Lack of availability of major raw materials.

Considering all these factors, attempts are being made to attract the following types of industries which are non-polluting and where the value added by industrial conversion is high namely :

- (a) Pharmaceutical formulations.
- (b) Electronics.
- (c) Readymade garments.
- (d) Light engineering.
- (e) Instruments, etc.

It has been realised that we may have to concentrate upon industries which are labour-intensive, of which requirements of power and water are limited and where the value

Mr Palekar is senior development officer of EDC.

Entrepreneurship— the common factor in Dempo's success.



- **V. S. Dempo & Company Pvt. Ltd.:** engaged in mining and export of iron ore. They are the largest ore exporters from Goa, having their own fleet of barges and a unique loading vessel named *L. V. Priyadarshini* with a loading capacity of 20,000 tonnes per day. Besides these, other activities of the Company include Imports, Stevedoring, Steamship Agency, Travel Agency and departmental stores in the main cities of Goa.
- **Dempo Mining Corporation:** are the biggest mining concessionaires and mineral ore suppliers.
- **Dempo Engineering Works:**

undertake building and repair of barges and trawlers.

- **Dempo Engineering Services:** responsible for major civil construction contracts.
- **Goa Paints:** manufacture industrial, marine and decorative paints.
- **Dempo Steamships Limited:** owners of numerous large bulk carriers plying on international waters.
- **Goa Carbon Limited:** manufacture and market calcined petroleum coke.
- **Dempo Dairy Industries Limited:** produce and sell a large range of dairy products.

V. S. Dempo & Co. Pvt. Ltd.

Admn. Office: Dempo House, Campal, Panaji, Goa.

ded by industrial conversion is very high.

Planned development

In order to have planned industrial development, the first step was taken in 1966 when Goa, Daman and Diu Industrial Development Corporation was established (GDDIDC). The GDDIDC took up the function of developing industrial growth centres along with the necessary infrastructure like roads, water supply, power supply, telecommunication of facilities, etc. In spite of this the impact of industrial development was not noteworthy. It was therefore, thought that a new corporation could be formed as promotional and financial institution as existing in other states. Accordingly, the Economic Development Corporation of Goa, Daman and Diu Ltd, (EDC) was set up in 1975 as a fully owned government company under the Companies Act. It is a promotional and financing agency and is expected to function as development bank. The EDC has been functioning alongwith GDDIDC and undertakes the following activities:

- (a) Selection and development of growth centres in the territory.
- (b) Identification of suitable industries which are best suited for this territory.
- (c) Identification and motivation of entrepreneurs.
- (d) Assisting prospective entrepreneurs in setting up industries.
- (e) Providing after-sales services for ensuring smooth running of the industries.
- (f) Help effectively implement various incentives of the government.
- (g) Provide financial and other assistance wherever possible.
- (h) Setting up industries of its own or in collaboration with private parties for creating suitable climate and giving lead for speedy industrial growth.

Achievements

With the assistance of EDC and GDDIDC, 506 industrial units have been catalysed with an investment of Rs 52.13 crores and having an employment potential of 11,000. Of these already 393 industrial units have gone into production having investment of Rs 31.69 crores and employing 7,500 persons. The remaining industrial units are at vari-

ous stages of implementation. The EDC as a financial institution has assisted about 125 industrial projects with financial assistance amounting to Rs 10 crores approximately. Similarly, as the agent for disbursement of capital subsidy, the EDC has so far disbursed Rs 166.64 lakhs.

The range of products manufactured by the units is very broad and the items manufactured are besan flour, gum tapes, welding electrodes, diamond drilling bits, biscuits, canvas shoes, liquid soap, aluminium utensils, corrugated boxes, hearing aids, fishnets twine, alloy steel castings, barge, accessories, scientific equipment (glass), electric glass seals, fire fighting equipment electroplating, RCC spun pipes, hotels, automobile bearings, resins, varnishes, surgical cotton, HDPE/LDPE bags.

EDC's diversified activities

(a) **Establishment of industrial units;** In addition to the promotional activities, the EDC has also established some of the industrial units either in the joint sector or as full subsidiaries of its own.

The Goa Time Movers Limited and Goa Electronics Ltd, are two subsidiaries of the EDC engaged in assembling of wrist watches and TV sets respectively. Another subsidiary of EDC M/s. Goa Auto Accessories Ltd, for manufacturing of automobile components, is being established. Similarly, the Automobile Corporation of Goa Limited and Goa Antibiotics and Pharmaceuticals Ltd are two joint sector projects of EDC and these units will be manufacturing automobile components and pharmaceutical formulations respectively. Both these units are expected to go on stream very shortly.

(b) **GHRSSIDC:** The corporation has established another subsidiary Goa Handicraft Rural, Small Scale Industrial Development Corporation for giving assistance in raw material procurements as well as marketing the products.

(c) **Commercial complex:** Another diversification of the EDC's activity has been the development of the commercial complex at Panaji. The preliminary project report was prepared by M/s Kirloskar Consultants Ltd, Pune. It is going to be a prestigious complex where it is proposed to provide all necessary ameni-

ties like water, sewerage, electricity, etc in a very specialised manner. Provision for laying underground electric and telephone cables is being made and a self-contained sewerage system is visualised. The whole project is likely to be completed by May 1984. The complex will house government offices, hotels, cinema, theatres, gardens, parks, service industries and other commercial establishments. There are 98 plots. The total area of the complex is 1,75,000 sq metres of which the saleable area is around 1,16,000 sq metres.

Export processing zone

A feasibility report for preparing an export processing zone in Goa (EPZ) has been prepared by M/s. Kirloskar Consultants Ltd, Pune. This report was further evaluated by the corporation. The Government of Goa, Daman and Diu has submitted the report to the Government of India for approval. The Government of India has appointed a committee to consider establishment of export processing zones in the country, under the chairmanship of Mr Prakash Tandon. A visit to the site at Verna was organised for Mr Tandon. The committee is expected to take an early decision in this regard. The EPZ will be spread over an area of 50 hectares wherein 30 sheds and 30 plots will be provided. The project outlay will be of Rs 535 lakhs. In addition to the above, a housing complex is also envisaged to facilitate the operation of units in EPZ.

Incentives

Some of the incentives offered in this territory are highlighted as under:

1. **15 per cent capital subsidy:** This incentive is available to the industrial units set up in this territory (except municipal limits of Panaji) on fixed capital investment. New units or substantial expansion of the existing units (substantial expansion is increase in the value of fixed capital investment not less than 10 per cent) are entitled to a subsidy of 15 per cent of the fixed capital investment subject to a maximum of Rs 15 lakhs. This subsidy on fixed capital investment is provided by the Central Government. The Director of Industries and Mines is responsible for compilation and sponsoring of applications in accordance with the procedures laid down

under the State Aid to Industries Act, 1973.

The EDC is the agent for disbursement of the subsidy to the units assisted by the EDC and GDDIDC.

2. Sales tax incentives: The registered small scale industrial units in this territory are eligible for exemption from sales tax on the sale of their finished products at the first point of sale for a period of five years. An alternative to this, the scheme of offering interest free sales tax loan has been introduced. This scheme is applicable to medium and large scale industries as well. Under the scheme new units can avail of interest-free loan in proportion to the sales tax payable by the unit for five years. The loan is repayable after 12 years.

3. Income tax exemption: The Government of India is exempting units set up in the industrially backward area from 20 per cent of the taxable profits from income tax for a period of 10 years under Section 80 HH.

In addition to 25 per cent deduc-

tion from profits and gains derived for a period of eight years under section 80-I. The company will be entitled for investment allowance at 25 per cent of cost of plant and machinery installed as per provision of section 32-A of IT Act.

4. Import assistance: All the import facilities under the government's new import export policy for backward areas are applicable to the investment made in this territory.

5. Subsidy for feasibility report: The Goa, Daman and Diu Industrial Development Corporation is offering subsidy to the extent of 50 per cent in respect of the cost of preparation for feasibility studies for which consultancy fees will have to be paid. The feasibility study covers marketing, survey, selection of suitable site and selection of particular process or technique.

6. Reduction in stamp duty: The government is remitting 50 per cent of the stamp duty payable under the Stamp Act, 1899 in respect of bonds or mortgage deed executed

in favour of the EDC, MSFC scheduled commercial banks as well as loans granted by government for production or development of small scale or cottage industries and also on the lease deed executed by GDDIDC for starting small scale industries.

It is a happy sign to note that quite a few large industrial units are running very successfully here and many other industrial houses are anxious to establish their units in this territory. The success stories of M/s Zuari Agro Chemicals, M/s Ciba Geigy, M/s MRF etc need not be repeated. Industrial giants like TELCO, Hindustan Antibiotics, E. Merck and many others have already spread their activities in this territory. Shortly, we expect two mini steel plants, one drugs complex of M/s Burroughs Welcome, and a paint factory by M/s Shalimar Paints, etc. Quite a few companies in the field of pharmaceuticals and electronics are seriously considering Goa as a location for their expansion/diversification activities.



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Project identification—A process

By A. B. PANKAR

GENERALLY, for an entrepreneur who already has an industrial background, project identification forms an autonomous internal process, may be diversification of existing lines or entering into related or complementary lines. Nevertheless, identification of investment avenues is a continuous process and not one shot affair.

The first and foremost requirement to initiate the process is the right type of data to assess, evaluate and come to a judgement on the possible candidacy of a project. However, this type of data is invariably not available in a published form. Collection of primary data is a time consuming as well as costly process. Hence, data available from secondary reliable sources are supplemented wherever necessary with primary data but combined with intelligent quantitative judgement and analysis.

In developed economies market forces automatically throw up new opportunities. Technological developments also have been another source of project ideas. But in a developing country like ours which suffers from lack of infrastructural facilities, the process of identification forms a part of the various programmes for industrial development undertaken by government authorities, including financial institutions. Providing financial assistance is no doubt the core activity of our development banks. This activity has to be supplemented continuously by way of identification of investment avenues.

Pre-investment study is a prerogative of an investment decision. This process has to be accelerated by systematic data building. Due to lack of data and expertise, it becomes a difficult and time consuming activity for an individual. All-India financial institutions, therefore, have promoted a chain of technical consultancy organisations throughout the country. The main objectives of these TCOs are to identify the industrial potentials of the region and prepare pre-investment studies as well as to identify potential entrepreneurs and provide them with technical and management assistance.

Fourteen TCOs have been promoted so far. This territory has no separate TCOs and EDC itself offers the services. In order to aid the process, the corporation as well as government organisation

monitor techno-economic surveys through various agencies. Prominent surveys completed so far have been.

a. Techno-economic survey of Goa, Daman & Diu — Industrial Development Bank of India study team.

b. Industrial potential survey of Goa, Daman & Diu — National Council of Applied Economic Research, New Delhi.

c. Industrial potential survey of Goa, Daman & Diu — Small Industries Development Organisations, New Delhi.

These surveys were undertaken at different periods. Depending upon the circumstances peculiar to the level of development already achieved, project identification was initiated either in accordance with the study of the "inputs" — resources or the "output" — the market. The project ideas suggested were based on agricultural, raw materials, forest products, mineral deposits, animal husbandry, fishery products, as well as human skills. Most of the candidate projects based on natural resources have been implemented so far.

However, it has to be noted that, the local resources, except perhaps for iron ore, do not lend themselves for any large-scale exploitation from the point of view of establishment of large resource based industries. Nevertheless, a lot of work has been done and is being done by our corporation and other local agencies in the development of small scale industries. Even though the growth of small scale industry in Goa has been impressive, the small scale industry by itself suffers from certain problems due to lack of proximity of raw material sources as well as markets. What is really required is to create a right blend of large, medium and small scale industries. Balanced industrial growth implies co-existence of large and small scale industries. The large and small scale industries are complementary to each other.

With the objective of identifying large and medium scale projects, the corporation has entrusted the National Industrial Development Corporation with an assignment to conduct a techno-economic survey for this territory. The NIDC has suggested five candidate projects with substantial ancillary potential. This survey is expected to initiate the process of identification based on the study of "the output"—the market.

So far, the corporation has effectively contributed to the process by promoting projects through subsidiaries and joint sector. Considering the limitations of infrastructure, the corporation has clearly laid emphasis on three sectors i.e. electronics, pharmaceuticals and light as well as precision engineering. The EDC by proper identification of investment opportunities has successfully introduced industrial culture through the subsidiary or joint sector companies.

- (a) Goa Electronics — Electronics industry.
- (b) Goa Time Mo — Precision Engg. vers Ltd.
- (c) Geno Pharma — Pharmaceuticals. ceuticals Ltd.
- (d) Goa Antibiotics & Pharmaceuticals
- (e) Automobile Corporation of Goa Ltd. — Engineering.

Goa also has a well organised iron ore mining industry. However, exports of iron ores from Goa are presently confined to sinter fines and pellets, while there are no buyers for lumps. In the process of excavation, the rate of accumulation of normal lumpy ore is about three million tonnes/annum which is going waste. This resource could be effectively utilised if a suitable reductant is made available in this territory. With the availability of such a reductant as natural gas and an appropriate direct reduction technology, an integrated steel plant based on lumpy iron ore could be promoted.

To accelerate the process and to provide a marketing potential for small scale units within the territory, the corporation is now pursuing medium and large scale projects through private or joint sector companies. Bus body building, fan assembly as well as moped assembly projects are expected to provide an ancillary potential ranging from 25 per cent to 45 per cent of the total inputs values. These ventures conform to the broad pattern of industrial opportunities identified for this territory. In times to come export-oriented industries would have a firm base due to an excellent all-weather port. Industries predominantly based on imported raw materials would also have significant economic advantages in this territory.

Mr Pankar is development officer of the EDC.

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Building up infrastructure

By PRAKASH KARNIK

THE legendary history of Goa goes back to the times of Sage Parashurama. From the 8th century until 15th century Goa was ruled by Hindu dynasties Goa reached the zenith of its glory during the 16th and 17th century when it was renowned for its fabulous wealth and as the greatest commercial centre, to the east of Suez. However, from the 18th century onwards, much of the glory of the Portuguese empire faded. After liberation Goa, Daman & Diu were constituted into a separate Union Territory with Panaji as its capital.

Goa district today comprises eleven talukas with Panaji as its district headquarters and Vasco-da-Gama, Margao and Mapusa as important commercial and industrial towns. The district of Goa is a hilly terrain especially on the eastern side where lies the southern end of the Sahyadri range. The terrain is intersected by a number of rivers flowing westwards providing a network of internal waterways which are navigable for a total length of 250 km.

The north of Goa is bordered by Maharashtra whereas east is bordered by Karnataka. The west is lined with a coast. The climate of Goa is generally warm and humid. There is little variation in the temperature throughout the year. Between June and September the district receives heavy rainfall. Due to heavy rainfall ranging between 3,000 mm and 4,380 mm throughout Goa the growth of forests is excellent.

Population

The area of Goa district is 3,701 sq km with a population of 10.82 lakhs as per the 1981 census.

The average density of population per sq km for Goa, Daman and Diu is 284 compared to 208 for whole of India. The female population per 1,000 males is 981 versus 935 for India. Percentage of urban population is 32.46 whereas that for the whole of India is as low as 19.91.

The percentage of workers is comparable to India. It is 30.63 as compared 32.91 for India.

Literacy

The territory of Goa, Daman & Diu is one of the advanced states of India in respect of literacy. According to 1981 census it had 55.9 per cent literates and educated persons as compared to 29.5 per cent for the whole country. The district of Goa which constitutes the major part of the territory has still higher rate of literacy of 56.39 per cent. At the time of liberation in 1961 the territory had only 30.8 per cent literacy which was close to the national rate of 23.9 per cent. The quick progress highlights the planned efforts made by the Government after the liberation. The high literacy is brought about by the excellent educational facilities.

Educational facilities

Almost every village in Goa has nursery, primary and secondary schools. There are colleges in major towns offering graduate courses in faculties of arts, science, commerce. There is an engineering college having affiliation to the University of Bombay. The Government of Goa, Daman & Diu runs a polytechnic college leading to diplomas in different faculties of engineering and

trades. There are also the industrial training institutes, training workers in various fields. The Goa, Daman & Diu Industrial Development Corporation has established a production-cum-training centre for training youth in some engineering trades. The educational facilities being so good, in the year 1978-79 the enrolment in all colleges per million population was 14,838 as compared to a mere 1,564 for the nation. Also the number of high/higher secondary schools is constantly rising. Due to higher educational facilities the ratio of doctor to population is as high as 1:1063 compared to 1:2889 for the country.

Communications

Due to its excellent geographical location, Goa has very good communication facilities. Goa is connected to Bombay by one Airbus flight daily. There is a steamer service operating between Goa and Bombay in the non-monsoon periods. There is a vast fleet of buses both in the private and government sectors plying between Bombay and Goa. Road links to Bangalore, Mangalore, Pune are available. Most of the reputed transport fleet operators have services and facilities extended to Goa.

There is a metre gauge railway connecting Goa with other regions. There are trains from Vasco to Miraj

GOA AT A GLANCE

Area	3701 sq. mt. of this, 29 per cent area is under forest and 36 per cent under cultivation.
Climate	Dust free, temperature-average 33.4°C max. 23.5°C min. (1980-mean)
Population	10,30,120-(1981 census)
Literacy	55.86 per cent (1981 census)
Power	Installed capacity 93,940 kva power consumed in 1978-79—1713.50 lakhs kwh.
Water	Installed capacity 18.70 mgd or 84,990 m ³ /D. Water consumed in 1979-80 1,16,87,577 m ³ .
Communication	Roads-2895 kms. Post offices—217; telegraph offices-70, telephone exchanges-29, public call offices—81, telephones-8,682
Educational	Schools—1,740; 5 Colleges of Arts and Science, 1 Medical College, 1 Engineering College, 2 Polytechnic Schools, 2 law colleges, 4 commerce colleges, 13 ITIs and other general and professional educational institutions.
Medical	Hospitals—30, Number of beds-2,209, large number of health centres, family planning centres, child welfare centres and social medical institutions. Also large number of private clinics.
Hotels	Starred hotels—12, non-starred hotels - 163. Also large number of boarding and lodging houses.
Amenities	Beautiful beaches, 26 cinemas and tourist spots
Banks	Number of branches—216

Mr Karnik is development officer, EDC.

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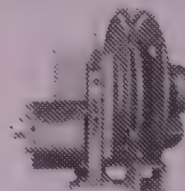
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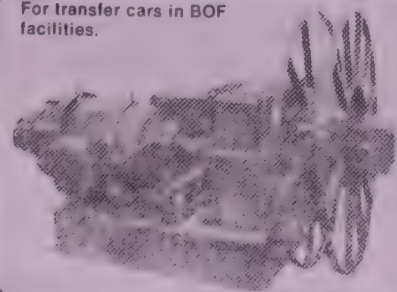
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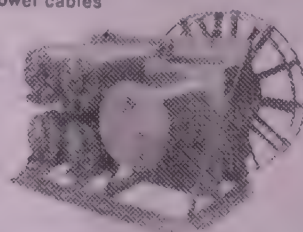


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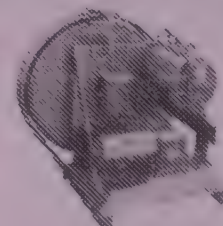
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with onward communication to Bombay and other regions. Connections are also provided from Goa to an important centre like Bangalore, in the south from Londa.

Goa is linked with the other regions by telephone. The capital city is connected with important cities in the country by STD telephone facility. Telex and wireless communication is available. Panaji has a radio station and by the end of 1982 Goa will have a television relay station.

All important towns in Goa are well connected with excellent roads and Maharashtra and Karnataka are connected to Goa by national highways. Goa has an allweather natural port. This is the backbone of the mining industry in Goa. Today Mormugao is considered a very important port on India's west coast.

Industry

After liberation there has been a rapid growth of industry in Goa. Prior to liberation mining had been the only major activity and perhaps the only source of income for the territory. One of the reasons why the industry did not grow then was lack of entrepreneurship, lethargy, lack of adequate infrastructure. It was then realised that industrial sector is one of the most dominant sectors of any developing economy. The government took concrete steps to promote industry. As a consequence of this, promotional institutions like the EDC, SISI, MSFC, GDDIDC and Directorate of Industries have registered more than 2,000 industrial units which alone contribute to more than 20 per cent of the total income of the territory.

Due to various incentives offered in this territory the industrial growth expected is high. The territory of Goa except for the municipal limits of Panaji is considered industrially backward and the industries set up in the area are eligible for capital subsidy of 15 per cent. Apart from the capital subsidy which is attractive to entrepreneurs, 20 per cent pre-tax profit exemption in income tax is another major relief.

Goa's two premier development agencies GDDIDC and EDC were set up by the Government of Goa, Daman & Diu to promote industries in a systematic and rapid manner.

The Goa, Daman & Diu Industrial Development Corporation was established in 1966 and it has been mainly fulfilling the infrastructural needs of the territory. It has since then developed growth centres

Table I : Size of each industrial estate

Name of the estate	Area in m2	Sheds completed		No. of units	
		completed	Under const.	Units in Production	Units under Implementation
1. Corlim	2,09,000	71	5	86	8
2. Margao	1,99,000	98	—	87	12
3. Sancoale	2,63,000	67	21	55	17
4. Mapusa	66,000	29	—	27	2
5. Tivim	2,53,000	61	5	43	22
6. Daman	2,00,000	65	1	51	23
7. Bicholim	90,000	25	13	14	8
8. Kakoda	97,000	—	11	—	—
9. Onda	2,03,100	—	—	—	—
New Estates					
1. Bethora	2,00,000	—	—	—	—
2. Kundaim	25,00,000	—	—	—	—

for industrial development with necessary infrastructure like roads, power supply, water supply, telecommunication facilities, etc.

The GDDIDC has so far established nine industrial estates at Corlim, St. Jose de Areal, Sancoale, Ponda, Daman, Mapusa, Karaswada, Bicholim and Kakoda. New industrial estates are also being established at Bethora, Kundaim, Tuem, Diu, Canacona and Daman. Ultimately it is proposed to have at least one industrial estate in each of the talukas so that the industrial activity is well dispersed all over the territory, to avoid imbalances and concentration

of activity and to maintain fairly same standard of economic growth in terms of standard of living, job opportunities, etc.

Ready built sheds

In the industrial estates ready built sheds and developed plots are offered on rental or hire purchase basis. Under the scheme of hire purchase the entire cost of the shed is payable in 10 years. The first instalment is of 20 per cent of the cost of shed payable at the time of taking the possession. Then there is a moratorium of two years. The balance 80 per cent is to be paid in eight





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annual instalments with 10 per cent interest on the outstanding amount. Rent subsidy is offered on sheds given on rental basis. Subsidy is 50 per cent of the rent for first two years, 40 per cent in the third year and 25 per cent for the 4th and 5th years.

Developed plots are available on long lease with premium payable in 12 annual instalments.

The necessary infrastructure by way of roads, water supply, power, telex, telephone are provided in the industrial estate. Other facilities include bank, post office, canteen in the premises of industrial estate.

Of the several industrial estates the estates at Corlim, St. Jose de Areal and Mapusa are fully developed. So far 416 sheds have been constructed in various industrial estates and 56 additional sheds are under construction. Presently 362 units are in production in the industrial estates and 92 units are at various stages of implementation.

Suitable site

Apart from the facilities in the industrial estates a lot of assistance is provided to those especially large and medium projects in selecting a

suitable site outside the industrial estates.

With increasing industrial activity housing for workers has become a vital problem. For a housing complex, the GDDIDC has given land to the Goa Housing Board for construction of tenements for the industrial workers, at Sancoale and Corlim. Similar exercise is being undertaken in other areas also.

As a first step in the development of a 'Tool Room', a training-cum-production centre has been started by GDDIDC in collaboration with HMT. This centre has a capacity for training 15 workers annually in different trades, such as machinist, fitters, and electricians. It is proposed to expand this centre by introducing additional trade courses such as tool die making, mill wright mechanics. This training will commence with the guidance from TELCO.

Additional power

The Union Territory of Goa, Daman & Diu does not have local power generation, and for supply of power the territory has to depend upon Karnataka, Maharashtra and Gujarat. Goa receives 65 mva from Karnataka 23 mva from Maharash-

tra. Presently this supply meets the demand, however, the projections show that the demand by 87-88 will be 338 mw. The Government of India has already allocated 200 mw power to the territory from the Centrally sponsored super thermal power projects — 100 mw each from Korba and Ramagundam.

As Goa is a good location for tourists and the tourism is increasing every year, in order to maintain its beauty and ecological balance, pollution-prone industries are discouraged in Goa. However, a study has been carried out to set up a separate industrial estate for pollution-prone industries where it may be possible to provide effluent treatment facilities to the units.

The labour in Goa is peaceful and hardworking. Though there has been an exodus of skilled labour from Goa to the Gulf countries, efforts are being made to train more and more people to fulfil the needs of upcoming industries.

Infrastructure is the backbone of industry. With increasing stress given to building up the necessary infrastructure, the industry in Goa will get a tremendous impetus in the years to come.

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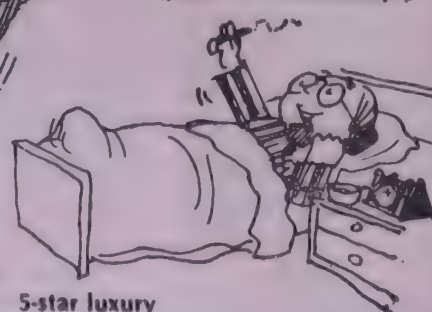
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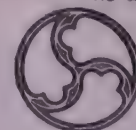


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EDC's funds—How they are utilised?

THE EDC was set up on March 12, 1975, as a development banking institution mainly devoted to promote industries and ensure economic upliftment of the territory. The establishment of a corporation was expected to raise the standard of living of the people through increase in the employment potential, and generation of additional income.

The EDC has already sanctioned net term loans of Rs 10.04 crores to 126 entrepreneurs and equity of Rs 2.71 crores to ten companies. To begin with, the corporation used to mainly cater to medium scale units with selected few SSI units, since the Maharashtra State Financial Corporation (MSFC) which is operating in Goa looks after SSI units. It started off with a 5 per cent joint participation scheme with MSFC for units in industrial estates. Small as this territory is, the EDC had limitations in financing medium scale units as well as small scale units. However, with the co-operation of the MSFC we could get permission from the Industrial Development Bank of India (IDBI) to directly finance small scale units. The performance of the EDC over the last seven years of its existence bears testimony to the fact that it has made appreciable progress not only quantitatively but also qualitatively in attaining the objectives.

With a modest sanction of Rs 15.45 lakhs as term loan to four units in 1975-76, the first year of operation, the EDC has completed seven years of its operation on March 31, 1982 with a net sanction of Rs 1,004.47 lakhs as term loan to 145 cases (126 units). Similarly the equity contribution also went up from Rs 15 lakhs in the first year to Rs 271.03 lakhs as sanction to 10 companies. The disbursement has shot up from Rs 5 lakhs to Rs 572.69 lakhs as term loan and from Rs 1.19 lakhs to Rs 238.01 lakhs as capital contribution to four subsidiary companies, two joint sector companies and four others.

Gross sanctions

Annexure 1 gives the summary of gross sanctions, net sanctions and disbursements over the years, of term loan and capital contribution.

It can be noted that the corporation's performance is gradually increasing with a substantial rise in the last year 1981-82 in the number of cases as also the amount.

In 1981-82, 38 cases were cleared with a gross sanction of Rs 349.92 lakhs, with the result the net sanctions have touched Rs 1,004.47 lakhs as term loan to 145 cases (126 units). The gross increase in the number of assisted cases has been from 118 to 156 cases with 32.2 per cent over the past cumulative figures and 126.67 per cent rise over the earlier figures of 1980-81. Amountwise there has been rise of 45.47 per cent of the

cumulative figures with an increase of 144.61 per cent over the figures of 1980-81.

The net sanction figures have also risen numberwise by 31.8 per cent and 116.67 per cent respectively and amountwise they are 51.3 per cent and 140.76 per cent respectively.

The disbursement trend has been more exponential than the sanction. An amount of Rs 245.41 lakhs was disbursed in 1981-82 with the cumulative figure reaching at Rs 572.69 lakhs. The figures of 1981-82 are 217.18 per cent of previous years figures with an overall increase

Annexure I

EDC : Summary of operations

(Rs. in million)

YEAR	YEARWISE				CUMULATIVE			
	Term Loan		Equity		Term Loan		Equity	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Gross Sanction								
1975-76	4	1.545	2	1.500	4	1.545	2	1.500
1976-77	16	10.350	4	6.260	20	11.895	6	7.760
1977-78	13	12.787	2	1.000	33	24.682	8	8.760
1978-79	27	11.825	1	0.120	60	36.507	9	8.880
1979-80	28	16.255	1	0.450	88	52.762	10	9.330
1980-81	30	24.197	5	11.165	118	76.959	15	20.495
1981-82	38	34.992	3	7.108	156	111.951	18	27.603
Net sanctions & commitments								
1975-76	3	1.125	2	1.500	3	1.125	2	1.500
1976-77	14	7.625	4	6.260	17	8.750	6	7.760
1977-78	9	6.112	1	0.500	26	14.862	7	8.260
1978-79	26	11.171	1	0.120	52	26.033	8	8.380
1979-80	28	16.156	1	0.450	80	42.189	9	8.830
1980-81	30	24.197	5	11.165	110	66.386	14	19.995
1981-82	35	34.061	3	7.108	145	100.447	17	27.103
Disbursements								
1975-76	1	0.500	1	0.119		0.500		0.119
1976-77	10	3.164	5	0.554		3.664		0.673
1977-78	15	4.341	6	2.355		8.005		3.028
1978-79	17	5.817	2	0.373		13.822		3.401
1979-80	26	7.606	2	0.504		21.428		3.905
1980-81	39	11.300	5	6.350		32.728		10.255
1981-82	61	24.541	7	13.546		57.269		23.801

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in cumulative disbursement by 74.98 per cent.

In the previous year 1980-81 the disbursement against sanction was 6.7 per cent and cumulatively it was 9.3 per cent, whereas in 1981-82 the same has been at 72.05 per cent and 7.01 per cent respectively.

The disbursement of 57 per cent of the cumulative sanctioned amount as term loan is definitely a good yardstick of the achievements.

Capital contribution

As far as the capital contribution is considered, the corporation has floated four subsidiary companies of which three are manufacturing concerns. They are engaged in manufacturing ATQ coils and TV sets, assembly of HMT watches and of brake-shoes. The first two are already in production and have started showing profits. The brake-shoe assembly unit is under implementation and is expected to go on stream by September, 1982. Its products will be lifted entirely by TELCO.

Another subsidiary is Goa Handicrafts, Rural and Small Scale Industries Development Corporation, a company promoted for procurement and distribution of raw materials and collection and sale of products from artisans, rural and cottage SSI units. Its main social objective is to help artisans engaged in handicrafts and develop rural and cottage industries. In a span of 1½ years it has given indications of proving a profitable business venture. Besides, two joint sector projects have been promoted in partnership with HAL and TELCO respectively, in which Rs 11.65 lakhs and Rs 96.50 lakhs have been contributed towards equity. The

projects are to manufacture pharmaceutical formulations and pressed components for TELCO respectively. These are expected to go into production before the end of the current year.

Further, the corporation has contributed towards equity/preference capital of companies promoted by technocrats and public issue of capital. It can be seen that out of total sanction of Rs 271.03

lakhs towards capital, an amount of Rs 238.01 lakhs has already been disbursed, which works out to 87.82 per cent more over the total paid up share capital of the corporation as on March 31, 1982 was Rs 274.50 lakhs which means 98.7 per cent of equity is utilised for the capital of new projects. The disbursement during the year 1981-82 has been 56.91 per cent of the total disbursements for the capital contribution.

Annexure 2

EDC : Industrywise category of sanctions

(Rs. in million)

	Term Loans			Equity	
	No.	Amount	%	No.	Amount
1. Chemicals & chemical products	10	12.101	10.81	—	—
2. Automobile ancillary products	1	0.640	0.57	3	14.650
3. Textiles	3	2.294	2.05	—	—
4. Machinery	1	4.000	3.57	—	—
5. Industrial gases	3	3.750	3.35	1	0.100
6. Paper and paper products	2	0.175	0.16	—	—
7. Hotel industry	31	6.749	6.03	2	0.958
8. Electric components	9	6.837	6.11	4	2.300
9. Pharmaceuticals	7	11.540	10.31	3	5.285
10. Service industry	5	6.129	5.47	—	—
11. Rubber products	4	2.488	2.22	—	—
12. Watches	—	—	—	1	1.000
13. Engineering instruments	5	1.132	1.01	—	—
14. Engineering industries	28	20.279	18.11	1	0.250
15. Ice manufacturing	1	0.022	0.02	—	—
16. Food and food products	5	1.408	1.26	—	—
17. Printing	4	3.431	3.06	—	—
18. Miscellaneous industry	34	25.026	22.35	3	3.150
19. Barges	3	3.950	3.54	—	—
	156	111.951	100.00	18	27.603

Annexure 3

EDC : Categorywise breakup of sanctions (Gross)

(Rs. in million)

Projects	Term Loan		Equity		Sector	Term loan		Equity	
	No.	Amount	No.	Amount		No.	Amount	No.	Amount
New	138	94.172	18	27.603	Private	153	107.704	5	1.868
Expansion	8	8.311	—	—	Joint	2	3.975	5	14.935
Balancing/modernisation	10	9.468	—	—	Public	1	0.272	8	10.000
	156	111.951	18	27.603		156	111.951	18	27.603
Client					Investment				
Small scale	110	72.617	8	4.920	Less than 0.5 million	98	16.489	5	1.288
Medium scale	46	39.334	10	22.683	0.5-1.0 m.	20	14.532	6	3.500
Large scale	—	—	—	—	1.0 m.-2.0 m.	21	28.300	2	2.000
					2.0 m.-3.0 m.	8	19.393	1	2.000
					Above 3.0 million	9	33.237	4	18.815
	156	111.951	18	27.603		156	111.451	18	27.603

Industry-wise breakup of financial assistance :

Annexure 2 gives the detailed breakup of financial assistance sanctioned over the years in the different categories of industries. It can be seen that major contribution is towards the miscellaneous industries which comprise cement products like pipes, bricks, tiles, footwear, jewel bearings, fishnets, furniture, zips, wines, diamonds, glass insulations, electrodes, etc. The 34 units have a share of about 22.35 per cent of assistance units. The next is engineering industries comprising foundries, forgings, tools and dies making, pressed components and parts, non ferrous articles like tubes, caps, etc. having a share 18.11 per cent. The third is chemical industry with a share of 10.81 per cent and then pharmaceutical industry with 10.31 per cent. The number of chemical industries assisted are comparatively few and mainly producing plastic items, soap, glass seals, bandages and Vitamin E acetals, industries which will create very little pollution. Where necessary, adequate precautions are being stipulated for pollution control. Numberwise, a substantial number of hotels (31) have been financially assisted for the development of tourism industry.

It is evident that almost all sectors have received financial assistance in a small or big way. Recently in 1981-82 the corporation has started financing the acquisition of barges also under the guidelines of the IDBI for internal water transport.

New/expansion/modernisation

Out of the total 126 assisted units, eight cases are for expansion amounting to Rs 83.11 lakhs and 10 cases are either for balancing or modernisation amounting to Rs 94.68 lakhs. The balance of 108 units are new projects which have been sanctioned term loans of Rs 941.72 lakhs gross. This implies that the bulk of funds is utilised for new projects.

Sector-wise distribution

Annexure 3 gives sector-wise distribution of funds. It can be seen that gross term loan assistance to the extent of Rs 1,077.04 lakhs was sanctioned to the private sector, Rs 39.75 lakhs to joint sector company viz M/s. Geno Pharmaceuticals Limited which is now a private sector with the transfer of EDC's shareholdings to a private entrepreneur, and Rs 2.72 lakhs to our subsidiary



Fire equipment being made at a factory in the Sancoale Industrial Estate.

M/s. Goa Electronics Limited to begin with, which has already been repaid. This works out to 96 per cent of the total term loan sanction.

Small, medium, large sector

To begin with, the corporation had limitations to extend financial assistance only to medium and large scale industries as are covered under SIDC as per the IDBI guidelines and since MSFC which is operating in Goa has to mainly cater to the small scale units. However, to begin with, since the number of new medium scale units being set up were few, the corporation made an adjustment with MSFC to allow EDC to finance a few selected small scale units and operated the 5 per cent joint participation scheme with MSFC. For hotels the corporation assisted in the ratio 1 : 4 with MSFC's participation. However, last year the corporation has been successful in getting the approval from IDBI to directly finance small scale units also and IDBI has identified EDC as an SFC also. This has enlarged the area of operations of EDC. This can be revealed from the operations in 1981-82 wherein 31 SSI units have been sanctioned term loan of Rs 260.79 lakhs and 7 non SSI units of Rs 89.13 lakhs including barge finance of Rs 39.50 lakhs. This works out to 75 per cent for SSI units and 25 per cent for non-SSI units.

Investment size

Quantumwise, maximum number of units have availed term loan assistance below Rs 5 lakhs. Out of 156 cases considered, 98 cases (63 per cent) fall under this category. Next are those availing assistance between Rs 10-20 lakhs, Rs 5-10 lakhs, Rs 30 lakhs and above and between Rs 20-30 lakhs respectively. This is another yardstick of the progress made by EDC towards balanced promotion and development of varied type of industries.

Other assistance

Besides giving term loan and equity capital for new projects, EDC has been the disbursing agent for 15 per cent capital subsidy. So far corporation has disbursed Rs 166.63 lakhs to 279 units. The corporation has been extending bridge loan against capital subsidy and has assisted 46 units to the extent of Rs 57.65 lakhs.

Refinance assistance

No sooner IDBI agreed to give refinance facility to EDC, the corporation has been availing refinance assistance in almost all eligible cases so as to help the entrepreneurs in getting funds at lower rate of interest. This also helps the corporation to mobilise the funds to a wider spectrum of industries. So far EDC has already availed Rs 332 lakhs from IDBI by way of refinance.

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Goa Handicrafts Corporation

THE Goa Handicrafts Rural and Small Scale Industries Development Corporation (GHRSSIDC), registered on November 3, 1980 has been set up with a view to giving a new orientation and strength to the development of handicrafts, rural and small scale industries in the Union Territory of Goa, Daman and Diu.

The corporation started just like other state corporations by implementing the schemes entrusted to it by the Goa government, namely, procurement and distribution of raw materials, marketing of handicrafts and products of rural and small scale industries sector, providing common facility to artisans and craftsmen and running of production centres.

During the first year of its operation the corporation had a turnover of nearly Rs 1.30 crore, of which contribution of IPCL material is to the tune of Rs 50 lakhs. In other activities such as supply of raw material to small scale units, the corporation is supplying cement, soda ash, fatty acid, paper, cane and bamboo, yarn to the weavers and marketing the products of small scale units, handicrafts, cottage industries and rural industries. The corporation has emporia at Panaji and Vasco and sales counters at Calangute and Dabolim airport.

The turnover of the handicrafts items will be to the tune of Rs 10 lakhs. For marketing of the products of SSI units and supplying to the government agencies and other organisations, the corporation is encouraging the setting up of consortia and such consortia have helped nearly 100 small scale units to come together and supply the requirements of the government and other organisations. The corporation is expected to meet the target of Rs 2.50 crores during the year 1982-83. The corporation has taken over the entire activities of MSSIDC and raw materials such as steel and iron are being supplied by the corporation from February 1982. During these two months, the corporation is expected to get a turnover of 1,000 tonnes.

Function: The corporation aspires to become an effective organisation for the implementation of the policies of the Goa government in the sphere of small industries. The objective is to help small artisans and craftsmen, facilitating the marketing of these products, improve quality, supply of right type of raw mate-

rials, provide common facilities, give them new designs and technological guidance and supervise their production to meet the market demand. The function in a nutshell is to stimulate entrepreneurship which is very much lacking in Goa artisans and craftsmen.

Service objective: The corporation though a commercial organisation will not lose sight of service and motivation to the units. An earnest effort is being made to establish full rapport with the units and the artisans and craftsmen who work in them.

Difficulties faced by small sector

The small sector in Goa faces keen competition from the units of adjoining states. It is observed that small units in Goa do not get the raw materials in proportion to their established or installed capacities as well as their expected and acknowledged performance. The efforts of the Goa government and the corporation to meet these requirements of raw materials will go a long way to help the small scale units in Goa to control their cost of production and compete with units in other states.

No doubt subsidy, rebate and fin-

ance at concessional rate will help the units to promote their crafts. At the same time these facilities have made them so much dependent on the government that their own initiative is lost.

It will be one of the objectives of this corporation to serve the smallest able-bodied person who has desire to work. It will have to provide him the opportunity to stand on his own legs and the corporation's activities will have to cover the under-developed as well as developing areas in Goa in order that regional imbalance is removed.

It should be clear that starting of an industry is not the function of this corporation. But it can be expected to render comprehensive assistance to established artisans and craftsmen and/or to inspire entrepreneurs when they come forward with viable small projects and help them to make a success of the schemes. The orientation that our corporation will have to take into its activities is to assist the smallest man of the community in the under-developed regions to grow. But there should not be any illusions about the role, it will always remain limited in rendering assistance to small units.



Canvas shoe making at the factory of Canvas Shoe (Goa) Pvt Ltd, Tivim Industrial Estate, Mapusa.

Goa Electronics Limited



TV sets being assembled at Goa Electronics Ltd in the Mapusa Industrial Area.

THE Goa Electronics Limited (GEL) was incorporated as a fully owned subsidiary of the Economic Development Corporation of Goa, Daman and Diu Ltd in March 1976, to serve as the nucleus to promote electronic industries in Goa. The company identified a few products, keeping in mind the manufacture of ancillary units for the supply of components, parts and other semi-finished raw materials. The Goa Electronics Ltd immediately implemented one of the identified products for the assembly of special type of coils for telephone exchanges manufactured by Indian Telephone Industries Ltd., Bangalore. The GEL has emerged as a dependable source for the supply of these items, which

meets their high standard of quality of ITI. The GEL has also succeeded in bagging orders for another product line for the manufacture of complex electronic subassemblies for the cross-bar type telephone exchange for Rae Bareilly factory of ITI.

The GEL has been manufacturing television sets in collaboration with the Electronics Corporation of India Limited, Hyderabad. The company has, till March, 1982, produced around 10,000 television sets. These sets produced by the GEL have been marketed in the highly competitive markets of Bombay and Delhi. These have been well received by the customers.

The GEL has been successful in developing the network of ancillary units in Goa. Presently almost 20 ancillary units are producing components to be supplied to GEL. The employment in these ancillary units is also fairly high. Due to recent increase in the licensed capacity to manufacture 10,000 TV sets by the GEL, it is estimated that the ancillary units will go up further and provide employment potential.

A television relay station is being installed at Altinho, Panaji very early and the GEL would then get an opportunity to meet the local demand by making available to Goans quality television sets.

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Goa Antibiotics and Pharmaceuticals Ltd

THE last decade witnessed a major effort from the investment community in Goa and outside to put this territory on the industrial map of India. The setting up of Goa Antibiotics and Pharmaceuticals Ltd has also contributed to the industrialisation of this territory.

In view of the declared policy of the Government of India to give a larger share of manufacture of bulk drugs and formulation to the public sector in order to make the essential drugs available to the people at reasonable prices Hindustan Antibiotics Limited decided to set up pharmaceutical formulations projects in participation with the state governments and financial institutions. Goa Antibiotics and Pharmaceuticals Ltd was the third project to be conceived following the pharmaceutical formulation projects at Nagpur in Maharashtra and at Bangalore in Karnataka. Goa Antibiotics and Pharmaceuticals Ltd was promoted in participation with Economic Development Corporation of Goa, Daman and Diu Ltd, a government of Goa undertaking.

This project is promoted at Tuem in Pernem taluka, one of the most backward regions in the territory of Goa, Daman and Diu. This is the first industrial venture in this taluka. The setting up of this project was in line with the Government of India policy to ensure a balanced and harmonious economic development.

The total capital cost of the project is Rs 2.52 crores. This is being financed from the equity base of Rs 85 lakhs. While Hindustan Antibiotics Ltd, is contributing Rs 43.35 lakhs (51 per cent) towards the equity, the contribution of Economic Development Corporation is Rs 41.65 lakhs (49 per cent). A term loan of Rs 152.50 lakhs has been sanctioned by the Industrial Finance Corporation of India and Industrial Credit and Invest-

ment Corporation of India. A sum of Rs 15 lakhs is also being made available under Central subsidy scheme. The project would have tablet, capsule, syrup, vial injection and ointment manufacturing facilities. At the installed capacity, the project would manufacture 270 lakh vials, 205 lakh capsules, 650 lakh tablets, 33 lakh bottles of syrup and 45 lakh ointment tubes per annum. The annual sales turnover is expected to be of the order of Rs 10 crores. The project would generate total employment of about 200. A considerable share of the employment would go to the educated young men and women from Pernem taluka and this would assist the curbing of the recent trend towards urban migration.

The construction of the factory buildings which commenced in January 1981, is virtually completed. This has been done inspite of lack of infrastructural facilities at the project site. The air-con-

ditioning, electrification, plumbing and sanitation work and erection of the machinery are in full swing and the company is to commence trial production in September, this year and normal production in December.

Meanwhile the company has started manufacturing under loan licence. The market seeding would be of great assistance in marketing the products of the company when the production commences in its own premises. Today, several products like benzyl penicillin injections, streptomycin injections, oxyphenbutazone, paracetamol, mebendazole, metronidazole, chlorpropamide, antacid tablets and cough syrups are being marketed by the company and a sales turnover of Rs 40 lakhs has already been achieved within a short period of eight months. The company is now in the process of building up its own marketing organisation.



Vialling line imported from West Germany under erection.

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Goa Time Movers Limited



Inside view of watch assembly line.

GOA Time Movers Limited, one of the wholly owned subsidiary companies promoted by Economic Development Corporation of Goa, Daman and Diu Limited (EDC), was incorporated on March 17, 1977 to assemble 2.5 lakhs and wound wrist watches per annum on single shift basis. For this purpose they signed a technical service agreement with HMT Limited, Bangalore to set up this unit.

The Goa unit is one of the units planned by HMT under a big expansion programme to increase production of hand wound watches to three million watches per annum. It is praise-worthy that HMT planned to achieve this target through the dispersal of their activities and promoting industries in rural and backward areas, thereby creating employment opportunities to the local people.

The unit was originally located in a rented shed hired from Goa, Daman and Diu Industrial Development Corporation and which was renovated to suit the requirement of watch industry. Initially the unit was assembling only the semi-knock down assembly watches by employing only 25 operators who were given training extensively by the HMT people who were stationed in Goa. Simultaneously a batch of 10 persons of various supervisory categories was sent to Bangalore for extensive training in HMT watch factory for a period of one year and after this training they were brought back to the unit to impart training to the new operators.

At present the unit is located in its own building. The building covers an area of approximately 550 square metres. This is in addition to canteen and godown which occupy an area of about 120 square metres. Both these buildings occupy land measuring approximately 3,000 square metres. The unit lies within the Mapusa city, which is about 13

km away from Panaji. The company has now a strength of 95 persons out of which 75 per cent are women, most of whom reside within a distance of 5 to 6 km away from the factory.

Total investment

The total investment in this project is approximately Rs 24 lakhs out of which Rs 10 lakhs has been contributed by EDC as its equity contribution and the balance amount of investment is made up of secured term loan from Maharashtra State Financial Corporation, capital subsidy and deferred payment against machinery and services.

The basic requirements for the location of such type of industry are that such unit should be away from dusty atmosphere and free from any external abnormal noises but linked by good motorable roads. Since Goa meets all these requirements and as the government is keen on harmonious balanced growth between industry and other productive sectors of the economy such as tourism, agriculture and fisheries, this unit fits into overall scheme of the territory development.

The unit started production in 1977 and in the very first year of its operation it assembled 87,000 watches and till March, 1982 it had assembled over nine lakh watches.

Precision jobs

The watch assembly industry needs highly skilled workers possessing requisite dexterity to hand and manipulate the minute components of a wrist watch. Goa can proudly boast of having this class of educated and intellectual labour to do the precision jobs. Since quality plays a major part in this type of industry it is necessary that the employees are trained extensively to achieve the set target and objective. For this purpose Goa Time Movers Limited has sent a batch

of 10 persons of supervisory level for extensive training for a period of one year at HMT plant at Bangalore. In addition to this, it has availed of the services of two HMT trained people as well as two Japanese (Citizen) technicians to get their staff members trained in Goa. These persons trained the operators in various operations of watch assembly and returned to their employees only after they were fully satisfied with the performance and the skills developed by the operators. At present training of the new operators is being conducted by the supervisory people of the unit in Goa. HMT Limited is fully satisfied about the training imparted by these people to the new staff members.

It is interesting to note that this unit, almost the last in the list of the states which were selected for setting up of such ancillary units by HMT, was the second in the list to go into production and the first to have its own building. This is really a great performance in view of various old factors in setting up such a highly skill oriented unit in the industrially backward area of Goa where industrial development is in infant stage. This was possible in view of sense of involvement exhibited by the young devoted executives and other staff members of EDC who were involved in bringing this project in Goa in record time.

The company has also started marketing the HMT watches through dealers in Goa and they have been appointed as authorised sole selling agents for HMT watches in the Union Territory of Goa, Daman and Diu.

The future plan of the company is to manufacture some of the watch parts which are required for watch assembly and these parts can be manufactured in this territory without disturbing the scenic beauty of the land, in line with the government's policy

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Automobile Corporation of Goa Limited

UTOMOBILE Corporation of Goa Limited, a joint venture of Economic Development Corporation for Goa (EDC) and Diu Limited (EDC) and Tata Engineering and Locomotive Company Limited (TELCO), was set up to manufacture automobile press parts and different assemblies for Tata vehicles. The volume envisaged is to press 7,000 different press items. The total cost of the project is approximately Rs 700 lakhs out of which Rs 96.50 lakhs (41 per cent) is contributed by the EDC and Rs 23.5 lakhs (10 per cent) by TELCO and the balance contribution was raised by way of public issue amounting to Rs 115 lakhs was recently made and which was over-subscribed by 6.2 times. The financial institutions will lend long term loan amounting to Rs 450 lakhs and the balance amount of Rs 15 lakhs will be contributed by way of Central cash subsidy. In addition to this, tooling and fixtures worth about Rs 1½ crores will be provided free of cost by TELCO besides free technical assistance for planning the project, selection of machinery etc.

The company will employ approximately 350 persons. Training of people to acquire particular skills will be done free of cost by TELCO at their plant at Pune. TELCO have also deputed one of

their very senior technical persons to supervise and train the local people so that standard of quality and output are of the highest order. The company has entered into an agreement with TELCO whereby the entire production will be taken by them. The company has a bright future and it is expected that in

the very first year of its operation the company will make a modest profit after providing interest and depreciation charges. The company expects to go into commercial production soon.

The company is headed by a well known industrialist of Goa Mr V. M. Salgaocar.



Last stage of construction of factory building of Automobile Corporation of Goa Ltd.

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Goa Auto Accessories Limited

GOA Auto Accessories Limited is another wholly owned subsidiary company of Economic Development Corporation of Goa, Daman and Diu Limited, which is being set up at Honda in Sattari taluka of Goa with free technical assistance from TELCO to manufacture brake shoes and other vehicle components which will be supplied to Automobile Corporation of Goa Ltd and TELCO

respectively. The total cost of the project is approximately Rs 230 lakhs out of which approximately Rs 150 lakhs will be availed as term loan from financial institutions and the balance is made up of equity and Central cash subsidy. The work of this project has already been started and the factory and administrative building is under construction which should get ready by September

1982. All the machines which have been identified are indigenous. The company expects to go into commercial production by September 1982, and will employ about 120 persons. It is worth noting that TELCO are giving free technical assistance to this project including supply of toolings and dies, and free training of personnel at their plant at Pune.

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LETTERS

Customer service in banks

R — This refers to the letter of Mr Nalin Adyanthaya in *Commerce* dated April 17, 1982.

I agree that the primary allegiance of bank executives as well as other employees is to the bank. I am of the view that every one working in the bank and enjoying so many rights has a corresponding obligation to extend better service to the customer... During the final three years of my service, I took this theme of customer service through leaflets, talks and rough writings in the house magazine.

In February 1976, the Editor of the Bank's house magazine *Sreyas* interviewed me and asked "For quite some time, you have been waging, almost a crusade for improving customer service. Have your efforts started yielding results? Do you believe that an awareness has been created among our employees of the necessity to better customer service?"

My answer (published in March-April 1976 issue of *Sreyas*) is as follows:—

"In the recent months there appears to be an awareness among the bank employees that they cannot afford to be idle, indifferent or delay matters or show discourtesy to customers. I would not like to take credit for this to my so-called crusade. My methods of persuasion, education and change of heart take longer time, but I believe it will bring better and permanent results.

"I am looking to the Customer Service Committee, set up to lead this crusade, and tell the customers to their rights". Thus, my talk of customer's rights was not after retirement. In fact I drafted the rights of customers and placed before the committee so that the staff could be made aware of this before going to the customers.

R. Prabhu
BANGALORE

Scandal of "Local Taxes"

SIR — The manufacturers of consumer products like biscuits, tinned foods, toothpaste, etc., indicate on the packet the maximum price at which it can be sold along with the local "plus local taxes extra". But the shopkeepers who sell these products to the public derive the maximum profit in the guise of collecting "local taxes" from the customers at a very high percentage without issuing cash bills.

As the public is not aware of the correct percentage of local taxes levied on the sale price, the manufacturers should publish in newspapers and trade journals the price of their products with the correct percentage of local taxes to be collected by the sellers. They should also insist that the sellers exhibit such price lists in their shops for the guidance of consumers.

V. Srinivasan
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COMMERCE

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PEOPLE



M.K. Modi



Moosa Raza



V. P. Punj



K.K. Modi



Jagdish Pathak

Mr Mahendra K. Modi, who has been elected president of the Association of Synthetic Fibre Industry for the current year, is the managing director and vice-president of Modipon Ltd. Mr Modi is graduate in chemical engineering from the Banaras Hindu University.

Mr Moosa Raza, who was till recently the managing director of the National Textile Corporation Ltd, New Delhi, has now taken over as the managing director of Gujarat State Fertilisers Co Ltd. The present managing director of the company, Mr D.C. Gami has shown a desire to step down from September 1. Till then both Mr Gami and Mr Raza will function as managing directors.

Mr V.P. Punj, chief executive of Punj Sons Private Ltd and Fedders Lloyd Corporation, has been elected president of Punjab, Haryana, and Delhi Chamber of Commerce and Industry for 1982-83. Mr Punj is a director in several other companies and associated with many industry and trade organisations. He is also on numerous boards and committees constituted by the central and state governments.

Mr Krishna Kumar Modi, who has been elected vice-president of PHD Chamber of Commerce and Industry, is presently vice-chairman and president

of Modi Industries Ltd. He is also a director in companies like Godfrey Phillips Indofit Chemicals etc.

Mr Jagdish Narain Pathak has been appointed chairman of Bank of Rajasthan Ltd. Before joining this bank, Mr Pathak was the executive director of Union Commercial Bank at Calcutta with which he had been associated for 37 years.

Mr S.C. Kothari, I.A.S., has been appointed managing director of Marathwada Development Corporation Ltd, the state government agency for the development of Marathwada region.

DEATH

Mr Arvindprasad R. Mahadevia, a senior partner of Mahadevia Brothers, a leading sharebroking firm, died in Bombay on July 28, 1982 following a heart attack. Mr Mahadevia, 65, played a vital role in changing the management of many corporate units through his skills in brokerage business. He was also on the board of the Bombay Stock Exchange for many years and was a director of several companies.

THE WEEK

The Union Ministry of Supply and Rehabilitation has decided to place orders for transmission and data processing equipment worth Rs 12 crores on US and Swiss firms.

The Export Credit & Guarantee Corporation will introduce three new schemes for exporters shortly: Overseas Stocks Finance Guarantee, *Force majeure* Risk Cover and Quality Control Cover.

The Union Government has decided to either withdraw or reduce cash compensatory support for items for which exporters do not supply cost data for scrutiny.

A high level committee composed of officials from the Ministries of Energy and Finance is to be set up to screen foreign proposals for the development of the power sector.

Canada has given aid worth \$ (C) 4 million to the All India Coordinated Research Project for Dryland Agriculture in Hyderabad.

Scooters India Ltd has licensed two companies — one each in Spain and Italy — for the manufacture of its brand scooters in Europe.

The Orissa Government has decided to invest Rs 1,000 crores in 200 new industries in the next two to three years.

The Gujarat Industrial and Investment Corporation has decided to set up a project to manufacture battery-operated motor cars in South Gujarat.

India has signed an agreement with the Food and Agriculture Organisation under which it will receive assistance of \$ 47,000 for olive and pistachio production.

The Tamil Nadu Government proposes to buy cement in the open market to ensure completion of its high priority irrigation and housing projects.

Wholesale price index

At 290.4 the latest available wholesale price index for a commodities for the week ended July 10, 1982 showed a rise of 0.2 per cent over the previous week and 1.1 per cent over the year.

Money supply

Easy conditions prevailed in the Bombay short-term money market as of Monday (July 26, 1982). In the inter-bank call money section, both notified and commercial funds were renewed at 4.5 per cent. Fresh money was transacted at 4 per cent. The market closed at 4 per cent.

Managing the mean monsoon

THE monsoon, after a very promising start has played truant. According to official reports, upto July 21 rainfall has been good (excess or normal) only on about 17 per cent of the net sown area. Compared with last year's record of good rainfall on over 85 per cent of the net sown area this is a great deterioration. This year rainfall has been deficient on over 72 per cent of the net sown area and scanty on nearly 11 per cent of the net sown area. In the week since then there have been reports of fairly heavy rainfall over wide areas of the country, which would no doubt reduce the adversity of the drought which has scorched the country for weeks together, blocking the efforts of the enterprising cultivators to sow rice and other crops and has caused untold suffering for millions of people. In Punjab 11 out of 12 districts, in Haryana 8 out of 12 districts, in West Bengal 13 out of 16 districts, Uttar Pradesh 10 out of 54 districts, in Madhya Pradesh 39 out of 45 districts, Maharashtra 18 out of 27 and in Bihar 19 out of 31 districts had all been experiencing deficient if not scanty rains. The situation was particularly grave in Rajasthan, West Bengal, Bihar, Uttar Pradesh and Orissa, where famine or near-famine conditions appeared in many districts.

Rains during the latter half of July have cheered up people in many places and the earlier feeling of inaction and gloom has been replaced by brisk activity on the fields, thanks to the extraordinary resilience of our peasantry who are never cowed by adversity, if the slightest opportunity for action remains. The sad fact is that cultivation in seventy per cent of the total cropped area is still dependent on the monsoon, notwithstanding the massive investment that has gone into the extension of irrigation facilities over the past thirty years of planning. The certain rains are thus bound to affect the crop prospects, even if not as badly as was feared at the beginning of July. At the same time it is a heartening fact that India is no longer in the same vulnerable position in the matter of foodgrains supplies as she was ten years ago. The buffer stock of 12.5 million tonnes at the end of June represents a great assurance. Procurement of wheat this year has been very much exceeding requirements for the last year, and there is still scope to procure more.

The truant monsoon has made it imperative that the government gears up its food management machinery. There is already a plan to deal with the contingency of drought. It is necessary to have a plan to make food available to all the masses and to prevent cornering of stocks and higher prices. The rise in the index (1970-71 = 100) of the wholesale price of cereals at 5.3 per cent during the year ended July 4, 1982 was higher than the average of 2.5 per cent rise in the index of all commodities during the same period. Just in one month ending July 4, the index of the price of cereals showed a rise of 2.6 per cent. There was not much reason for such a steep rise, in the context of the bumper foodgrains production during

1981-82. Thus utmost alertness on the part of the government is what is called for and there should not be any hesitation to adopt any measure to keep the situation under control.

FAO fears that wheat production in India during 1981-82 may turn out to be one million tonnes less because of heavy untimely rains during the harvesting season. The Union Agriculture Ministry has ruled out the necessity of importing wheat, hoping that wheat procurement from the crop would be one million tonnes more than during the earlier season. The poor monsoon may leave no choice other than to import foodgrains from outside. Seventy per cent of the world's marketable grain stocks is in North America — USA and Canada — and another 23 per cent is accounted for by Australia, Argentina and the European Economic Community (mainly countries of continental western Europe). The point is that India may not be the only country needing food imports. Last month the Soviet Union was reported to be ready to negotiate a long-term grains agreement with the USA with a new minimum import of as high as 12 million to 15 million tonnes (compared with eight million tonnes at present). The FAO has forecast world trade in cereals during 1982-83 at 196-212 million tonnes compared with 209 million tonnes during 1981-82. The United States Department of Agriculture (USDA) has forecast the USSR grain production at 185 million tonnes — 23 per cent below target. Since in recent times the USDA's estimate of the Soviet grains production had turned out to be over-estimates the actual production in the USSR could turn out to be even lower. The Soviet Union is also scheduled to purchase 7.5 million tonnes of grains including 5 million tonnes of wheat from Canada. Developing countries now import 80 to 90 million tonnes of foodgrains annually and the quantity may go up to 145 million tonnes a year by 1990.

On a global scale the prospective food situation is not very bright. No doubt the carryover stocks of world foodgrains are around 18 per cent of the world consumption and are within FAO's defined safe level. The significance of these stocks would be much diminished if account is taken of the fact that the number of seriously malnourished and outrightly hungry people in the world would soon go up, in the wake of the world economic recession, from the current level of 400 million. Mr Maurice J. Williams, executive director of the United Nations World Food Council, has called for the urgent establishment of a foodgrains reserve of 12 million tonnes to improve food security in developing countries and help farmers in major exporting countries where grain prices are low in real terms.

The Food and Agriculture Organisation (FAO) of the United Nations has lowered its earlier estimate of world cereal output during 1982 to the range between 1,470 million tonnes and 1,590 million tonnes (earlier estimate 1605 million tonnes) mainly because of the worsening crop prospects in the USSR. FAO

has reported that not only winter wheat was affected adversely by dry weather in early May and June but spring plantings were also lower than actual sowings in recent years. Drought also affected the prospects of coarse grain production in Southern Africa, which is now estimated at a lower level than last year's production. World wheat output is expected to stay at the last year's level of 461 million tonnes while coarse grains production is forecast to fall below the last year's level of 791 million tonnes.

In the context of the not-so-comfortable food situation the projected export of rice becomes difficult to justify. According

to the Union Minister of State for Agriculture, Mr F. Swaminathan, the Government of India wants to export 1 million tonnes of rice during the current year! The eagerness to export foodgrains arises out of the misconceived notion that it is all right to earn foreign exchange, no matter how hard the people within the country may be hit. Such an attitude on the part of a government which swears by its concern for the interest of the poor and the economically weak is not easy to understand. At any rate such a policy cuts at the very heart of the nation's effort to achieve self-sufficiency in foodgrains and must be given up.

Goa: Industrialising backward talukas

THOUGH planned development in Goa began only after Independence in 1961, over two plans behind the rest of the country, the Union Territory has made a creditable progress. By the end of March 1981, entrepreneurs in Goa, Daman & Diu had succeeded in putting up over 2,200 small scale units, employing about 17,000 persons. Further, the more dynamic among them had managed to set up as many as 31 large and medium industries involving a capital investment of Rs 138 crores. The iron ore industry meanwhile continued to thrive, though, along with the world steel industry, it is passing through a phase of depression currently. But it is clear that this mineral wealth, which has been the mainstay of the Goa economy since the early 1940s, will be depleting itself in the next two decades or so and the territory will have to depend for its progress and growth on the industrial structure that it is building up both in the small scale and large scale sectors. The problem of unemployment among the educated is being already felt, with the population having risen to nearly 11 lakhs in 1981, or nearly double the figure at the time of Independence, with literacy rate as high as 56 per cent and as much as 65 per cent among men. If the impact is not severe it is because skilled and semi-skilled labour has migrated to West Asia where better paid jobs are available, and even to erstwhile Portuguese colonies. Once the skilled labour returns, though this may not happen in the immediate future, the need for such industries will be all the greater.

The government of the territory is keen on its balanced development. Goa's sixth plan aims at establishing at least 1,000 new small scale units, and industrial estates are being set up in each of the 13 talukas of the territory. Particular attention is being paid to the establishment of industrial estates in the interior talukas so that the educated and semi-educated can find employment nearer home. This policy is to be welcomed for there has been a concentration of industries in the four coastal talukas of Bardez, Tiswadi, Mormugao and Salcete. As small as 25 per cent of the territory's contiguous area accounts for about 90 per cent of industries operating in Goa.

Two agencies of the government, namely, Goa, Daman & Diu Industrial Development Corporation and the Economic Development Corporation for Goa, Daman and Diu have played a prominent role in implementing this industrial policy of the government. Particularly the Economic Development Corporation has played a catalytic role by helping individual entrepreneurs to establish industries as also by setting up subsidiaries and other companies in collaboration with well-known names in the corporate world as HMT, Electric Corporation of India, Tata Electric and Locomotive Co. and Hindustan Antibiotics. These two agencies have made available the basic industrial infrastructure in the form of developed industrial sheds; there is a good network of roads transport system as well as satisfactory banking system. But this does not mean infrastructure needed for the growth of industries is available in adequate measure. Goa has been suffering from shortage of power, which has been a major factor behind the closure for three years of the fully export-oriented Maruti Pellets. The EDC is doing its best to take the industries to backward and rural areas. But unless all the basic infrastructure facilities required by industrial units are provided at the behest of EDC or any other agency promoted by the government in setting up industries in rural and backward areas will not be achieved. The lack of telex and telecommunication facilities in Goa hampers industrial activity. There are no quick means of communications for getting raw materials required for industrial needs or for getting in contact with customers of products. In a small market of just 10 lakh population it is obvious that the Goan entrepreneur has to depend on neighbouring states for the sale of products. The Union Ministry of Communication may consider permitting private parties to lay down cable and install telecommunication instruments in case the department has difficulties in procuring them because of shortage of funds. Otherwise taking industries to backward areas will be a defeating proposition.

(See also supplement on

EDITOR'S NOTEBOOK

Vadilal Dagli

Enemies of growth

A young engineer entrepreneur from South India tells me that it takes more time to get through government and banking formalities than to build a factory in India! He said that right from the acquisition of land to obtaining industrial licence and bank loan one has to visit Delhi and Bombay almost every week for two to three years before one starts the construction of the factory. He added: "I am a medium-size entrepreneur but still I keep a contact man in Delhi. I have also to keep a banking contact man in Bombay". Recently he wanted to expand his factory and he got German collaboration, but New Delhi would not clear his collaboration terms for two years. This frustrated him. This also surprised and annoyed the German partner. So just out of pity for the young man the German industrialist told him: "Now be patient with your government and take away my drawings and start fabricating the machinery. When you get the government approval you may settle my account. If you don't get it, good luck to you and God bless you". This is typical and not an exceptional case of avoidable harassment to young entrepreneurs.

P.: Civilised dissent

MR Bisheshwar Prasad Koirala (popularly known as "BP"), who died in Kathmandu at the age of sixty-seven on July 21, was a living embodiment of gritty and civilised struggle against feudal oppression. Mr Koirala's life was also a symbol of the evolution of modern and democratic Nepal. His links with India were both physical and spiritual. He was born and brought up at Varanasi, as his father had been exiled because he was the follower of Mahatma Gandhi. Mr Koirala was already a participant in the freedom struggle in India, when he came under the influence of Acharya Narendra Deva, the Indian socialist leader, and rose to be an important member of the Indian Socialist Party. He courted arrest several times for India's freedom movement. When India became free he moved to Nepal and launched numerous agitations to make that country less feudal. He was

imprisoned and tortured. However, the Rana autocracy crumbled in face of popular resentment. In 1959, the Kingdom of Nepal witnessed the first general elections which brought the Nepali Congress led by Koirala into power. He was the obvious choice for the Prime Ministership which he held for nearly two years. In December 1960, King Mahendra suspended the democratic constitution and arrested Mr Koirala. Since then he had been in and out of prisons. The most endearing aspect of B.P.'s personality was that though he was a born fighter he was never bitter. It is this heritage of refined dissent which Mr Koirala has bequeathed not only to the people of Nepal, but to entire mankind.

Brezhnev jails pacifists

HOW hypocritical is the peace movement launched by the Soviet Union was again seen when the Soviet authorities arrested two members of Moscow's Independent Anti-nuclear Group so that they cannot have any contact with 200 Scandinavian peace marchers who staged an anti-nuclear parade on June 18 in Leningrad. The two Soviet peace lovers were Yuri Medvedkov and Yuri Khronopoulo. They were sentenced to 15 days in jail on a charge of 'hooliganism'. Nine more members belonging to this non-official peace committee are being harassed by the Soviet authorities. What about the charge of hooliganism? Mrs Yuri Medvedkov said: "Doubtless this matter was fabricated against two members of the peace group, two professors, to isolate them from the peace march". It is interesting that while the Soviet Union has permitted the Scandinavian peace demonstrators to stage a parade in the Soviet Union, it has denied this freedom to its own citizens. The Soviet Union had of course permitted the Scandinavians for propaganda purposes, but their activities were restricted. The Scandinavians have protested that they were not permitted to have any contact with Soviet citizens or even officials.

Power of human rights

THE way Arabs behaved towards Palestinian Liberation Organisation

(PLO), which is being literally decimated by the Israelis, has evoked a sense of revulsion even among the Muslim countries. Why have the Arabs, so rich and numerically so powerful, remained spineless speculators to the invasion by Israel, which is a tiny country of only four million people? Mr Mahmud Darvaish, a leading Palestinian poet, has analysed the causes of the Arab helplessness. He is of the opinion that the picture of West Asia would have been quite different had the Arab population been enjoying fundamental rights coupled with passion for science and technology, which naturally confer unique strength on a people. The point made by Mr Darvaish has also been made in a different way by an Algerian. The former Algerian President, Mr Ben Bella, who was a Nehru of Algeria, and was imprisoned after a military coup, has now launched a movement throughout the Islamic world for the primacy of fundamental rights. So human rights are not the luxuries of democratic societies but the sinews of strength of any society.

A new daily

AT a time when the number of daily newspapers is on the decline all over the world, it is good to see the birth of a daily. This is not the only reason why I welcome the emergence of *The Telegraph* which hit the stands in Calcutta on July 7. It is edited by Mr M. J. Akbar who has already made a name in periodical journalism. While going through the first few issues of the paper I was impressed by the quality of its editing. I was glad to see that they have been able to persuade the former Finance Minister of West Bengal, Dr Ashok Mitra, to write a weekly column. I was equally delighted when I saw a birthday tribute to Mr Pramod Das Gupta, the unassuming communist (Marxist) leader of West Bengal, who has not visited the West Bengal Secretariat even though he is easily the most powerful man in the party, which has been ruling West Bengal for more than five years now. *The Telegraph* would appeal to the intellectuals and the common man of West Bengal whose aspirations it attempts to reflect.

CROP & COMMODITY SURVEY → JUNE 1982

Gamble on rains again!

By COMMERCE RESEARCH BUREAU

COVER STORY

THE monsoon broke out on the Kerala coast in the last week of May but the promise of the timely beginning of the monsoon was not sustained in subsequent weeks. There was a prolonged drought over many parts of the country hindering agricultural operations, power generation in the hydel plants and even giving rise to the curtailment of drinking water supplies in the urban areas. According to the Union Minister for Agriculture, Rao Birendra Singh, in Gujarat 12 out of 20 districts had experienced scanty rainfall. In Punjab 11 out of 12 districts, in Haryana 8 out of 12 districts, in West

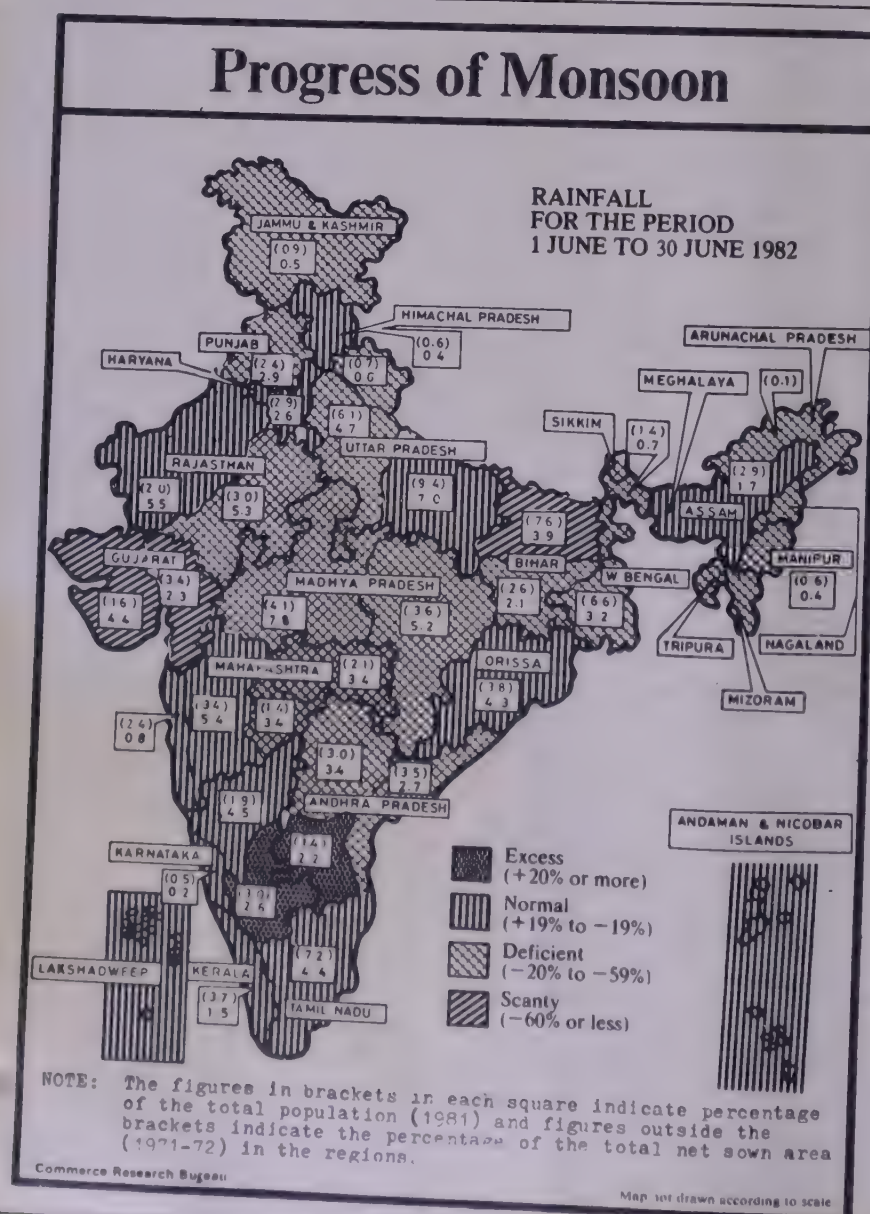
Bengal 13 out of 16 districts, in Uttar Pradesh 42 out of 54 districts, in Madhya Pradesh 39 out of 45 districts, in Maharashtra 18 out of 27 districts, in Bihar 19 out of 31 districts had all been experiencing deficient if not scanty rains. The situation was particularly grave in Rajasthan, West Bengal, Bihar, Uttar Pradesh and Orissa, where famine or near-famine conditions appeared in many districts. Fear was expressed that the drought might create a situation much worse than the Great Bengal Famine of 1943 and the disastrous Bihar famine of 1966-67.

The rainfall was deficient and scanty,

during the period June 1 to July 14 1982. 78.7 per cent of the net sown area accounting for 80.6 per cent of the population. Only a little more than a fifth (21.3 per cent) of the net sown area accounting for less than a fifth (19.3 per cent) of the population received good rainfall. Thus the position was very much worse than last year when 77 per cent of the net sown area had received good rainfall and only 23 per cent deficient rainfall and there was none with scanty rainfall. If even with such a good monsoon last year it was not possible to attain the target of food production of 138.5 million tonnes, with such a poor monsoon it is hardly likely that the target of production of 141.5 million tonnes of foodgrains will be achieved this year. The Union Minister for agriculture described this year's drought as worse than that of 1979. In several states agricultural operations which commenced on time because of the timely monsoon, had to be suspended for lack of rains to sustain these. In case of paddy transplantation was halted in several areas.

Seventy per cent of the total cropped area is still dependent on rains, notwithstanding the progress registered in the extension of the irrigated area.

Rao Birendra Singh, Union Minister for Agriculture, outlining the measures adopted by the government to cope with the drought situation, told the Rajya Sabha on July 20 that a team consisting of officers drawn from the Ministries of Agriculture, Irrigation and Energy (Rural Electrification Corporation) would be sent soon to visit the states, where rainfall had been deficient, to make an assessment of the situation and to improve on the State Government to ensure the supply of electricity, diesel and other agricultural inputs so that production of foodgrains would not suffer. The Department of Agriculture had started in early May a contingency plan to meet the drought situation, providing to the state governments and various departments of the Government of India



tailed guidelines to cope with the drought. Request was made to watch the situation continuously and to see that timely action was taken for helping the farmers in combating adverse weather conditions and for providing the rural populations with employment, income, cattle feed and drinking water. The banking sector was requested to assist the farmers in drought-affected areas. The state governments of Maharashtra and Madhya Pradesh were requested to make optimum use of the available irrigation water in the reservoirs for crop production purposes. Constant review was being made of the provision of seeds of short-duration varieties, loans, fertilisers and the optimum use of water in the irrigation system, with priority for supplying power and diesel in agricultural operations and the provision of drinking water.

Rajasthan continued to suffer from severe drought and all the districts in the State were declared famine stricken. In Orissa, the State Government proposed to work out an alternative strategy to meet the situation created by the failure of the monsoon and the consequent damage to kharif paddy and other crops. The West Bengal Government sought central assistance to the tune of Rs 27.74 crores for drought relief works. In Uttar Pradesh, the State Government got itself ready to meet the situation. Haryana was also reported to be gearing up to meet the drought conditions. The failure of the monsoon affected sowing and transplanting operations. Sowing operations were undertaken only in about 10 to 15 per cent area in parts of Maharashtra. In areas where sowing was undertaken the crops were reported to be withering.

Rainfall over wide areas in north India in the week ending July 21 brought some relief from the heat wave and the drought. Agriculturists in all parts which received rainfall had gone back to their fields to resume sowing operations. Though the kharif agricultural operations have been delayed considerably this year, the position may improve if the monsoon behaves well in the coming weeks which may be considered as crucial.

According to the Director-General of Meteorology, Mr P. K. Das, the monsoon was likely to be "weak and erratic" this year. Another report said that rainfall this year was not going to be more than 50 per cent of the normal. The distribution of rainfall over the different areas till July 14 is alongside:

Movement of South-West Monsoon 1982 (As on July 14, 1982)

Meteorological sub-divisions	Percentage	
	Population	Area net sown
Excess/Normal		
Andaman & Nicobar	Neg.	Neg.
Assam & Meghalaya	2.9	1.7
Madhya Maharashtra	3.4	5.4
Telangana	3.0	3.4
Rayalaseema	1.4	2.2
North Interior Karnataka	1.9	4.5
South Interior Karnataka	3.0	2.6
Kerala	3.7	1.5
Lakshadweep	Neg.	Neg.
Total	19.3	21.3

Rainfall deficient

Nagaland, Manipur, Mizoram and Tripura	0.8	0.4
Sub-Himalayan West Bengal and Sikkim	1.4	0.7
Gangetic West Bengal	6.6	3.2
Orissa	3.8	4.3
Bihar Plateau	2.6	2.1
Bihar Plains	7.6	3.9
East Uttar Pradesh	9.4	7.0
Plains of West Uttar Pradesh	6.1	4.7
Haryana, Chandigarh and Delhi	2.9	2.6
Jammu and Kashmir	0.9	0.5
East Rajasthan	3.0	5.3
West Madhya Pradesh	4.1	7.8
East Madhya Pradesh	3.6	5.2
Konkan and Goa	2.4	0.8
Marathwada	1.4	3.4
Vidarbha	2.1	3.4
Coastal Andhra Pradesh	3.5	2.7
Tamil Nadu and Pondicherry	7.2	4.4
Coastal Karnataka	0.5	0.2

Total 69.9 62.6

Rainfall scanty

Hills of West Uttar Pradesh	0.7	0.6
Himachal Pradesh	0.6	0.4
Punjab	2.4	2.9
West Rajasthan	2.0	5.5
Gujarat Region	3.4	2.3
Saurashtra	1.6	4.4
New Delhi	0.1	—
Arunachal	—	—

Total 10.8 16.1

Grand total 100.0 100.0

Wheat procurement during the 1982-83 rabi marketing season (April 1982—March 1983) was 7.4 million tonnes till June-end 1982 as against 6.3 million tonnes during the corresponding period last season and total procurement of 6.6 million tonnes last year.

Rice procurement during the current kharif marketing season (November 1981—October 1982) till June 30, 1982 was 7.1 million tonnes as against 5.6 million tonnes during the corresponding period last year.

The total procurement of foodgrains during the 1981-82 agricultural year (July 1981—June 1982) was 14.7 million tonnes, the highest ever. The foodgrains stocks on June 23, 1982 were 12.5 million tonnes as against 13.6 million tonnes at the end of June 1981.

The Cotton Corporation of India purchased 10.01 lakh bales of cotton till July 2, 1982 during the 1981-82 cotton marketing season (September—August) thus, exceeding the revised target of ten lakh bales.

The total sugar production during the 1981-82 sugar season (October—September) reached a record 81.72 lakh tonnes by mid-June as against 50.41 lakh tonnes during the same period last year. The Union Government has reportedly decided in principle, to build up a buffer stock of five lakh tonnes of sugar.

The National Bank for Agriculture and Rural Development (NABARD) came into being on July 12, 1982. It would commence operations from July 15 throughout the country.

The following paragraphs present the statewide and cropwise position in the month of June 1982.

ANDHRA PRADESH

Foodgrains production in the State during 1981-82 was 113.35 lakh tonnes as against 99.92 lakh tonnes in 1980-81. The production was an all-time high, the previous highest being 106.67 lakh tonnes during 1978-79. Rice production also reached a record level of 78.61 lakh tonnes as against 71.3 lakh tonnes in 1980-81 and the previous peak of 74.32 lakh tonnes in 1978-79.

Heavy rains on June 17 claimed eleven lives and washed away several houses in the low-lying areas of Hyderabad city. It was the first heavy rain of the season.

The Centre sanctioned a short-term

loan of rupees one crore to the State for the purchase and distribution of agricultural inputs like fertilisers, seeds and pesticides for the kharif programme during 1982-83. This would bear an interest of six per cent per annum and a rebate of quarter per cent for prompt repayments of the loan.

Towards the end of the month a severe heat wave in Kakinada and neighbouring areas due to lack of rains affected agricultural operations. Canals were reported to be drying up making cultivation more difficult.

The castor production in the State during 1981-82 was estimated at 54,100 tonnes against 26,300 tonnes during the previous year registering an increase of about 106 per cent.

ASSAM

Heavy rains during the month caused the Brahmaputra and its tributaries to rise above the danger mark and flood vast areas. The districts affected by flood waters were — North Lakhimpur, Sibsagar, Goalpara and Nowgong. Four persons lost their lives and over 1.5 lakh persons were affected. Standing crops of paddy and jute were damaged in an area of 85,000 hectares. Over 130 villages in Nowgong district were submerged.

BIHAR

Bihar has been hit by a drought as extensive as West Bengal's. Some 19 districts have been reeling under its impact and the paddy crop in the State has already been badly damaged. According to the Bihar's Agriculture Minister, the extent of the damage to the paddy crop is already so severe that the State's rice production this year would be lower by at least 1.5 million tonnes.

Apparently, monsoon is yet to stabilise in Bihar although intermittent showers and scattered rainfall have been reported from various areas. According to the official sources, the drought situation continues to be alarming.

Political parties led by Communist-Marxists, have demanded that Bihar be immediately declared a famine-hit area considering that foodgrains have virtually disappeared from the open market and where available, the prices are so high that they are well beyond the reach of the common people.

The State Government fixed a target of 63 lakh tonnes for kharif paddy pro-

duction this year.

The State Government has sought World Bank credit for the Subarnarekha multipurpose project which would irrigate 1.60 lakh hectares in the State. The Centre had already accorded approval for Rs 480 crores for the project.

Pulses production in North Bihar this year would be double at 93,000 tonnes according to the State's Agriculture Minister.

GUJARAT

The State Government built up a buffer stock of coarse grains of 50,000 tonnes in 1982-83. The experiment of raising a buffer stock of coarse grains was undertaken only during the last year when 27,000 tonnes were distributed during the lean season.

Groundnut growers in Jamnagar district would get subsidy totalling Rs 72.50 lakhs in the form of inputs for growing kharif groundnut during 1982-83.

The State Government evolved a formula of self-help for rescuing thousands of small and marginal farmers who are victims of drought every three years. Under a specific scheme such farmers would be encouraged to plant three or four rows of eucalyptus or "subabul" trees on the fringe of their farms at a spacing of two feet.

The Cotton Corporation of India (CCI) purchased 2.40 lakh bales of cotton valued at Rs 57 crores during the current season (September 1981 — August 1982) till June-end as against 2.10 lakh bales valued at Rs 50 crores purchased during the corresponding period last season. The CCI was reported to be carrying large unsold stocks of long staple cotton in the State as at the end of June.

HARYANA

The Haryana Agricultural University scientists have devised a new method of sowing wheat known as cross-sowing method which raises the yield of late sown wheat. It was claimed that with the new method the wheat production in the State could go up by 40 per cent.

The State Government has finalised plans for granting power connections to 1,500 tubewells every month. It was estimated that at least 15,000 tubewells in the State needed power connections.

Power supply to farmers was made available for a period of nine hours daily for the sowing of kharif crops.

The State Government revived a scheme of subsidising the supply of sulphate to the State's paddy growers from this kharif season for which a sum of Rs 40 lakhs was allotted.

Wheat specials were rushed to deficit States of West Bengal, Kerala, Maharashtra and Gujarat from Karnataka and a quantum of three lakh tonnes has been despatched by June 12.

The State Government decided to introduce the new "warimetry" system for calculating charges for canal water in more areas in Rohtak and Haryana districts, replacing the existing century-old crop method of assessment. The new method fixes the charges on the basis of the number of turns water is received by the cultivator. The existing method assesses the charges on the type of crop and areas sown and varies from crop to crop.

HIMACHAL PRADESH

Unfavourable weather conditions during May and June resulted in a loss of Rs 25 crores in the horticulture sector of the State. About half the apple crop was damaged. The bad weather also made the apple crop vulnerable to the incidence of scab disease in new areas in Simla and Kulu districts. Of the total loss, more than half — about Rs 13.5 crores — was due to the uprooting of two lakh trees and partial damage to four lakh trees. The rain, hail and chilly weather resulted in losses estimated at Rs 11.20 crores to fruit crops mainly in Simla, Kulu, Chamba, Solan and Sirmaur districts.

The State Government proposed to cover 1.30 lakh hectares under improved methods of dryland farming. About 40,000 hectares of dryland would be used for intensive rainfed farming methods.

JAMMU & KASHMIR

Hailstorms in the last week of the month affected 71 villages of Badgam district. About 100 cattle were lost and 50 houses were damaged. Maize and vegetables and fruit trees were also damaged.

KARNATAKA

The State Government issued instru-

to all sugar factories to pay Rs 180 tonne (plus Rs 6.50 as purchase tax) to farmers as the uniform price for their sugarcane crop during 1982-83 sugar season as against Rs 170 per tonne (plus tax rebate) last year.

Financial institutions have been asked to extend loans to flood victims

Flash floods in Udupi on June 11 claimed 18 lives and damaged 500 houses. Union Deputy Finance Minister, Mr. M. V. Poojari, who visited the area, said that financial institutions would extend loans to the flood victims for reconstruction of houses, purchase of agricultural implements, replacement of tools, etc. The Prime Minister sanctioned rupees one lakh from the Prime Minister's Relief Fund to provide immediate relief. The State Government sought Central aid under the flood relief programme for the permanent resettlement of over 800 families affected by the floods. A sum of Rs 300 was given to each of the affected families as immediate relief. The total sum allotted by the State for relief was rupees five lakhs.

The State Revenue Minister told the Assembly on June 15 that all available excess land in the State would be distributed among the landless poor and weaker sections under the land grant scheme in another two months. According to the Minister about 75,000 hectares of land was available at the beginning of 1982 for disposal of which about 800 hectares of land was distributed.

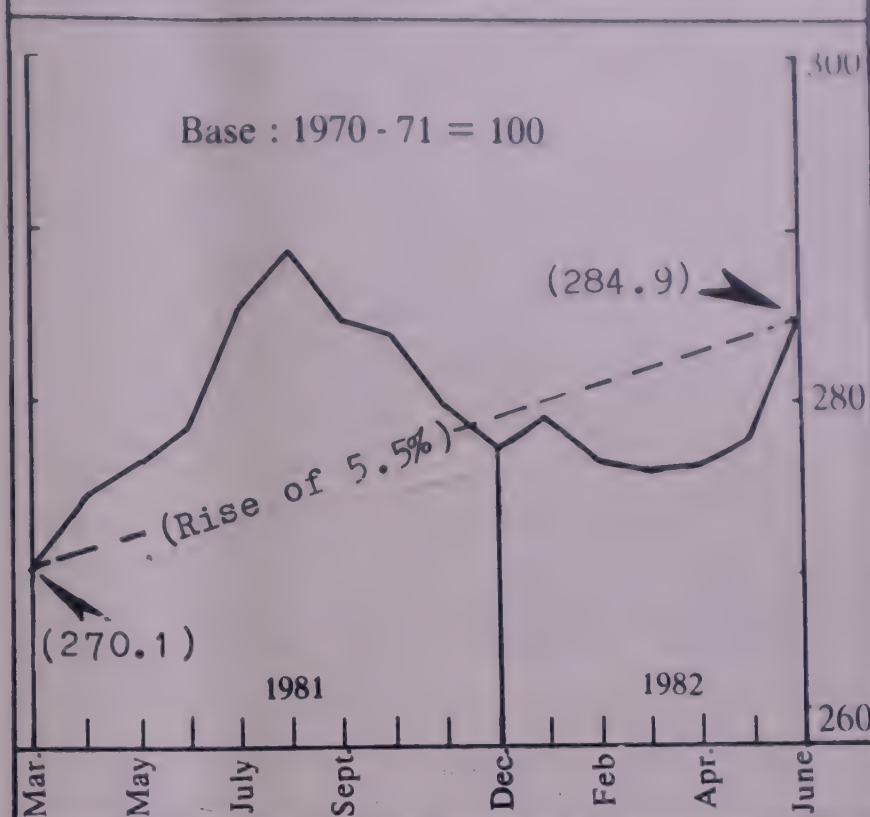
KERALA

The State Government was considering the temporary take over of the cashew factories after its failure to persuade the private cashew processors to reopen their factories. Lately, the Government had assured the State Government an assistance of Rs 10 crores for failing cashew factories.

Kerala may have French technology for coconut processing.

A French firm offered to help the State Government to set up a cocoa processing unit using modern technology. Besides rendering technical advice,

Wholesale Price Index



Commerce Research Bureau

PRICES IN JUNE 1982

Rising tempo accelerates

The uptrend in the wholesale price index which commenced in April 1982 gathered momentum during the month. At 284.9 the average wholesale price index for June 1982 showed an increase of 2.6 per cent over the preceding month. During the first quarter (April-June) of the current financial year the average wholesale price index was higher by 0.7 per cent over that of the corresponding period of 1981-82.

The rise in the wholesale price index during the month was attributed to the rise in the prices of arhar, fruits and vegetables, eggs, fish, logs and timber, cottonseed, raw silk and lac, canned and preserved seafood, solvent extracted groundnut oil, coconut oil, kardi oil, rice bran oil, hume pipes, typewriters and diesel engines.

Month	Wholesale price index (Average) (1970-71=100)	Percentage change
1981		
March	270.1	+0.5
April	275.7	+2.1
May	277.9	+0.8
June	279.9	+0.7
July	285.6	+2.0
August	288.8	+1.1
September	284.6	-1.5
October	283.9	-0.2
November	280.2	-1.3
December	278.0	-0.8
1982		
January	279.2	+0.4
February	277.1	-0.8
March	276.3	-0.3
April	276.5	+0.1
May	277.8	+0.5
June	284.9	+2.6

Index numbers of wholesale prices (Base: 1970-71 = 100)

Group	Weight in the official index	June 26, 1982	May 29, 1982	June 27, 1981	% variation on June 26, 1982 over	
					May 29, 1982	June 27, 1981
Manufactured products	49.9	271.7	266.4	276.8	2.0	-1.8
Food products	13.3	270.6	251.7	336.4	7.5	-19.6
Paper & paper products	0.8	300.7	304.6	270.9	-1.3	11.0
Primary articles	41.7	273.5	263.9	260.9	3.6	4.8
Food articles	29.8	249.8	238.6	229.6	4.7	8.8
Non-food articles	10.6	241.5	234.9	241.1	2.8	0.2
Fuel, power, light & lubricants	8.4	446.5	446.5	401.0	-	11.3
All commodities	100.0	287.2	280.6	280.7	2.4	2.3

PROGRESS OF THE SOUTH-WEST MONSOON DURING JUNE 1982

State/Region	Popula- tion 1981 Census (million)	Net area: 1971-72 million hectares			Kharif crops	Rainfall for the period June 1 to June 30, 1982				Rainfall for the week ending June 1982						
		Sown	Irriga- ted	Percen- tage of net irri- gated area to net sown area		Food	Cash	Normal (mm)	Actual (mm)	Depart- ure from the normal (Percen- tage)	Over all posi- tion	2nd	9th	16th	23rd	30th
Andhra Pradesh	53.61	11.27	3.00	26.6	Rice, jowar, bajra,	Castorseed, groundnut,										
Coastal	23.74	3.71	1.88	50.1	maize and ragi	tobacco, mesta,	102	69	-33	D	D	S	E	D	D	D
Telangana	20.17	4.63	0.66	14.3		cotton and chillies	139	102	-27	D	D	S	E	D	D	D
Rayalaseema	9.70	2.93	0.48	16.4			69	109	59	E	E	S	E	E	E	E
Assam	19.90	2.24	0.57	25.4	Rice and maize	Jute and tea	395	357	-10	N	S	N	D	N	N	N
Bihar	69.82	8.28	2.38	28.7	Rice and maize	Jute, mesta and										
Plateau	17.57	2.90	0.21	7.2		potato	185	142	-23	D	S	E	N	ND	D	D
Plains	52.25	5.38	2.17	40.3			840	216	-74	S	S	E	E	ND	D	D
Gujarat	39.14	9.32	1.21	13.0	Bajra, jowar,	Cotton tobacco,										
Gujarat region	23.53	3.26	0.48	14.7	rice and maize	groundnut and	99	35	-64	S	S	NR	E	S	S	S
Saurashtra and Kutch	10.61	6.06	0.73	12.0		castorseed	71	8	-89	S	E	NR	D	S	S	S
Haryana (Including Chandigarh & Delhi)	19.50	3.67	1.57	42.8	Bajra, maize, rice and jowar	Cotton and sugarcane	56	49	-11	N	D	NR	N	E	S	S
Himachal Pradesh	4.24	0.55	0.09	16.4	Maize, rice and ragi	Apples, potato and ginger	121	118	-3	N	S	S	E	E	S	S
Jammu and Kashmir	5.95	0.71	0.26	36.6	Maize and rice	Apples and saffron	51	24	-53	D	E	NR	D	D	D	D
Karnataka	37.04	10.33	1.38	13.4	Ragi, jowar,	Safflower, groundnut,										
Coastal	3.94	0.31	0.11	35.5	Bajra and rice	cotton coffee and	941	901	-4	N	E	S	E	E	D	D
Interior North	13.16	6.30	0.45	7.1		sugarcane	105	91	-13	N	E	D	S	E	N	N
Interior South	20.44	3.72	0.82	22.0			66	98	49	E	E	E	D	E	E	E
Kerala	25.40	2.19	0.44	20.1	Rice, ragi and tapioca	Tea, coconut, coffee, arecanut, rubber and black pepper	624	638	2	N	N	N	N	E	N	N
Madhya Pradesh	52.14	18.46	1.64	8.9	Jowar, maize,	Sesamum, groundnut,										
East	24.42	7.38	0.75	10.2	rice and bajra	cotton and sannhemp	164	104	-37	D	S	S	N	N	D	D
West	27.72	11.08	0.89	8.0			116	79	-32	D	D	NR	N	E	S	S
Maharashtra	63.72	16.58	1.34	8.1	Jowar, bajra,	Cotton, safflower,										
Konkan and Goa	16.16	1.00	0.04	4.0	ragi and rice	groundnut, chillies and sugarcane	664	658	-1	N	D	S	E	E	S	S
Madhya Maharashtra	23.50	6.96	0.74	10.6			102	108	6	N	E	S	S	E	S	S
Marathwada	9.73	4.31	0.27	6.3			139	67	-52	D	E	NR	D	D	S	S
Vidarbha	14.33	4.31	0.29	6.7			178	106	-41	D	S	NR	N	D	D	D
Manipur	1.41	0.14	0.07	50.0	Rice	Chillies										
Meghalaya	1.33	0.16	0.04	25.0	Rice	Potato, Jute and mesta										
Nagaland	0.77	0.06	0.01	16.7	Rice											
Orissa	26.27	6.12	1.15	18.8	Rice, ragi and maize	Castorseed, sesamum, jute and mesta	178	182	2	N	S	ND	N	ND	S	S
Punjab	16.67	4.08	2.96	72.5	Maize, bajra and rice	Cotton, sugarcane, groundnut and potato	38	26	-33	D	S	NR	N	E	S	S
Rajasthan	34.11	15.26	2.17	14.2	Bajra, maize and jowar	Cotton, sesamum and sannhemp										
East	20.71	7.48	1.44	19.3			57	38	-33	D	N	NR	D	E	S	S
West	13.40	7.78	0.73	9.4			27	22	-18	N	D	NR	S	E	S	S
Tamil Nadu (Including Pondicherry)	48.90	6.35	2.71	42.7	Ragi, rice, bajra and jowar	Tea, chillies, groundnut, sesamum, cotton and sugarcane	45	46	2	N	N	E	D	E	D	D
Tripura	2.05	2.40	0.02	0.83	Rice	Jute, mesta and tea										
Uttar Pradesh	110.89	17.32	6.99	40.4	Maize, bajra, rice and jowar	Sesamum, potato and sugarcane										
East	64.01	9.87	3.70	37.5			88	76	-14	N	S	ND	N	S	S	S
West (Plains)	42.06	6.58	3.15	47.9			71	57	-20	D	NR	ND	E	E	D	D
West (Hills)	4.82	0.87	0.14	16.1			152	88	-42	D	S	ND	S	S	D	D
West Bengal	54.80	5.71	1.49	26.1	Rice	Jute, mesta, tea and potato										
Sub-Himalayan and Sikkim	9.74	0.97	0.12	12.4			634	475	-25	D	E	E	D	D	D	D
Gangetic	45.06	4.74	1.37	28.9			243	168	-31	D	S	N	D	N	D	D

NOTES: E = Excess, i.e. + 20 per cent or more N = Normal, i.e. + 19 per cent to - 19 per cent D = Deficient, i.e. - 20 per cent to - 59 per cent
 Figures of rainfall for Assam include also those for Meghalaya S = Scanty, i.e. - 60 per cent or less NR = No rain ND = No data

firm also agreed to share 20 per cent the total cost of the project of Rs 11 crores.

The Centre sanctioned a loan of rupees 10 crores for the construction of new protective walls to combat sea erosion along 320-km coastline.

The Kerala Agro Industries Corporation (KAIC) decided to set up a Rs 30-crore pesticides formulation plant and a upset assembly unit.

GUJARAT

The International Fund for Agricultural Development (IFAD) has agreed to provide a loan of 25 million dollars for a medium irrigation project in the State. This would benefit 1.80 lakh farmers by bringing an additional one lakh hectares under irrigation.

The General Insurance Corporation of India has decided to insure paddy, sugarcane and cotton crops on an experimental basis this year in 36 tehsils of the State. The ceiling for insurance in a tehsil would be rupees two lakhs for paddy, sugarcane and Rs 2.50 lakhs for cotton.

Under the Chambal ravines afforestation scheme 'babool' and 'aroosa' seeds would be sown on 2,000 hectares each in Bundelkhand and Bhind districts. Over Rs 16 lakhs will be spent on the programme this year, of which rupees two lakhs would be provided as grant-in-aid. The forest department would spend Rs 400 lakhs on soil conservation.

MARATHWADA

The long dry spell in the State has created anxiety among the farmers. In Nasik district, only 10 per cent of the sowing operations were completed by the end of June, whereas normally 50 per cent of sowing operations should have been completed by that time. In areas where sowing was completed, the absence of rains after June led to withering of seedlings. The State Government decided to supply free seeds worth Rs 30 lakhs to the farmers for sowing of kharif crops if the monsoon does not revive by July 15. The target for kharif foodgrains production in the State is fixed at 74.55 lakh tonnes for cereals and 10.40 lakh tonnes for pulses.

The State's cotton monopoly phase scheme ended on June 30, 1982.

The State Government has asked the Centre to extend the scheme for a period of 10 years. The Maharashtra State Co-

operative Marketing Federation (MSCMF) purchased 77.32 lakh quintals of raw cotton under the scheme during the 1981-82 season. At the end of June 1982, 14 lakh bales were pressed while another one lakh bales were expected to be pressed in the coming months. The Federation, it was feared might suffer considerable losses in its operations as a result of the prolonged strike of textile workers in Bombay. The Federation's unsold stocks of cotton at the end of June were about seven lakh bales worth Rs 210 crores.

The MSCMF paid Rs 80 lakhs to onion growers of Nasik district on account of areas.

The Shetkari Sanghatana launched an agitation on June 28 to demand higher milk prices for the producers. They demanded rupees four per litre for cow's milk with 3.5 per cent fat content and rupees five per litre for buffalo milk with six per cent fat content. Despite this, the State Government was able to maintain normal distribution of milk to consumers from government milk schemes, except in the Marathwada region where the milk supply was affected to some extent. The agitation was, however, withdrawn by the organisers after five days.

MANIPUR

Incessant rains on June 19 and 20 caused a breach in the embankments of the Imphal and Iril rivers thus affecting the inhabitants of the valley. The army was called out to assist the 1,000 affected families. About 500 houses were submerged.

NAGALAND

The Coffee Board proposes to set up a research centre at Yisemyong in Mokokchung district, where coffee cultivation has been taken up. The coffee nursery has supplied seedlings to various projects and the results are encouraging.

ORISSA

The south-west monsoon advanced into the eastern parts of the State on June 16.

The cyclonic storm which hit the coastal districts of the State on June 3 claimed 250 lives and affected 7.3 million people in seven districts. Over 10,000

head of cattle were lost. In Cuttack district the loss to government property was placed at Rs 65 crores. The cyclone damaged jute and vegetable crops and submerged paddy fields in 1.5 lakh hectares.

A six-member Central study team headed by Mr M. N. Choudhary, Adviser to the Planning Commission, visited the cyclone-hit areas of the State to assess the damage. The State Government had sought Central assistance of Rs 114.73 crores and Rs 12 crores as loan.

The Prime Minister sanctioned rupees five crores as ways and means advance and rupees two crores as short term agricultural inputs for relief to the cyclone victims when she visited the State on June 11.

PUNJAB

The kharif campaign for 1982 launched by the State Government has emphasised increasing production of pulses and oilseeds. The shift in emphasis is likely to rectify the ecological imbalance of the State.

The State received pre-monsoon showers during the month which helped kharif sowing operations and provided some relief to areas affected by the dry spell. Dust storms, however, interrupted the paddy transplantation operations to some extent.

Eight cold storages for storing potatoes, each with a capacity of 4,000 tonnes, would be set up in the State in the next two years with the assistance from the World Bank. These were expected to help the farmers to get a remunerative price for their potatoes.

RAJASTHAN

Drought conditions persisted during the month. All the districts were declared famine stricken. The crop loss in 23,245 out of 33,305 villages was more than 50 per cent. Again, among the affected villages the crop loss was more than 75 per cent in about 12,000 villages.

The State Government asked for Central assistance to the tune of Rs 183 crores. The Central Government sanctioned Rs 37.03 crores as advance plan and non-plan assistance to the State Government for providing relief to 20 million people affected by drought.

About seven lakh persons were engaged in relief works started by the government. The total number of persons

to be covered under relief operations is 35 lakhs. The State Government had sanctioned Rs 111 crores so far. In 1,500 villages, where all water sources had dried up 200 tankers were deployed.

Kharif foodgrains production during 1981-82 was expected to be lower at 21 lakh tonnes as against 27 lakh tonnes in the previous year.

During the year 1982-83 the State Government proposed to increase the areas under oilseeds by 26,000 hectares. The total area under oilseeds would be 1.4 million hectares which would yield 7.15 lakh tonnes.

The State Government exempted small farmers from paying land revenue with retrospective effect from April 1, 1977. The exemption would be applicable to those farmers who have unirrigated land holdings within the prescribed limit.

TAMIL NADU

The State Government instructed the land development banks to resume legal action against farmers owning over two hectares of land who failed to repay loans, thus revoking suspension of distraint action ordered last month.

The State Government's ambitious programme of providing a nutritious mid-day meal to 65 lakh poor children between the ages of 2 and 14 throughout the year was launched on July 1, 1982.

A Rs 36-crore World Bank scheme for providing the latest research findings to farming families in the State through the medium of agricultural extension workers was launched on July 1, 1982. The scheme was a notable success in West Bengal and Madhya Pradesh where it was in operation.

The Tamil Nadu Co-operative Oilseeds Growers Federation proposes to release double refined soyabean oil to consumers through cooperatives. Initially, 2,700 tonnes of oil allotted by the National Dairy Development Board would be released. In a bid to popularise the oil, it is being sold tax-free and is priced Rs 2 lower per kg than the prevailing groundnut oil price.

TRIPURA

The State Government has decided to revive rubber plantations in over 200 hectares of land in Rupachhora area. New rubber plantations will also be taken up by the Tripura Forest Development and Plantation Corporation in an area of 55

hectares in the Paikhola area.

UTTAR PRADESH

Wheat production during 1981-82 was expected to be lower than the earlier estimate of 133 lakh tonnes by 18 lakh tonnes on account of damage due to untimely hail and rains. Procurement till June-end was 11 lakh tonnes as against 13 lakh tonnes in the corresponding period last year.

The State Government relaxed the norms for purchase of wheat damaged due to the untimely rains in May so as to help the farmers to sell it. Accordingly, where the damage was two per cent it would be procured at Rs 142 per quintal, at Rs 140 per quintal for five per cent damaged wheat and Rs 138 per quintal for eight per cent damaged wheat. The stock limit for private traders was fixed at 250 quintals and the limit on sale by traders was withdrawn.

The State Government has a target of increasing the irrigation potential in the State by 23.2 per cent by the end of the Sixth Plan (1980-85). As against this, it has achieved an increase of 9.3 per cent in the first two years of the Plan period — 1980-81 and 1981-82. The Sarda Sahayak Project, utilising the waters of the Ghaghra river and the biggest project in the State targeted to irrigate 4.32 lakh hectares, was expected to be completed next year.

The sugar factories in the State produced 20.35 lakh tonnes of sugar in the current crushing season till June 15. A sum of Rs 466 crores was expected to be paid by the factories to the sugarcane growers this year as against Rs 286 crores last year.

The Uttar Pradesh Sugarcane Research Council, Shahjahanpur, has developed a number of new high yielding varieties of sugarcane such as CoS 767 and CoS 802 with 17.3 per cent and 16.9 per cent recovery, with yields of 110 to 120 tonnes and 80 to 100 tonnes per hectare respectively.

The Chief Minister, Mr V. P. Singh, announced on June 8 a plan for insurance of agricultural labour in the State. The plan which would cost rupees one crore envisages a payment of Rs 2,000 to the families of the deceased agricultural labourers in case of accidental death and Rs 1,000 in case of permanent disability. The scheme would benefit more than 5.4 million agricultural labourers and their families and would thus cover

a population of nearly 20 million.

A massive tree planting programme was launched in the State in June. Under the programme over 21 crore trees will be planted during 1982-83.

According to an announcement made by the State Food Department, consumption in the State would get two months' supply quota at a time.

WEST BENGAL

The agricultural situation in West Bengal continues to be hopeless with drought affecting 12 out of 16 districts. Monsoon has just become active in the south Himalayan and Gangetic West Bengal according to the Regional Meteorological Centre in Calcutta but the damage that has been done by the late arrival of the monsoon — there has been practically little rain in the second half of June and first half of July — will not be easily repaired. According to the Agricultural Department of the Government of West Bengal, 40 per cent of the rice crop and the jute crop have already been damaged and 50 per cent of the aman crop, it is said, had already been lost. West Bengal produces two-thirds of the total Indian raw jute crop and with a 40 per cent loss in West Bengal's crop raw jute production during the jute year 1982-83 is unlikely to exceed 7 million bales.

Rainfall since July 23 has been fairly widespread. On the morning of that date some 62 mm of rain was recorded in Midnapore, 20.7 mm in Darjeeling, 24.1 mm in Jalpaiguri, 20.2 in Bagdogra, 11.5 mm at Durgachawk and 14.3 mm in Panagarh. There was moderate rainfall ranging between 7.7 mm and 9.1 mm in Uluberia, Sriniketan and at Sandhead Diamond Harbour. Calcutta and its suburbs have also been experiencing intermittent rain with occasional showers. However the situation in Purulia, Bankura and Nadia, the three worst drought-stricken districts in the State, so far continues to be grim.

The weather office does not confirm that monsoon has firmly set in in West Bengal. Whether it has will be clear from the way weather behaves during the closing days of July.

The Jute Corporation of India (JCI) will purchase 1.55 million bales of jute in the State during the 1982-83 season (July 1982-June 1983). The JCI purchased one million bales last season as against the target of 1.37 million bales. This year the JCI will purchase jute from the

ers having jute cards issued by the government.

The onset of the south-west monsoon eased the drought situation in Puruliya, Bankura and Birbhum districts. The State Government sanctioned rupees three crores for relief operations in the drought affected areas. The State Government sought Central assistance to the tune of Rs 27.74 crores for drought relief works. The State Agriculture Department proposes to distribute 3,000 tonnes of paddy seeds for sowing during the *aman* season.

The State Government has decided to give interest-free agricultural loans to sharecroppers and lessees of farm land. The loans would be disbursed through nationalised, rural and cooperative banks in the kharif season 1982.

Italy agreed to aid a Rs 15-crore horticulture development project in five North Bengal districts so as to increase the fruit production.

The late onset of the south-west monsoon affected paddy sowing operations in several States while paddy transplantation was affected as a result of weak monsoon in several areas.

Procurement of rice during the current kharif marketing season (November 1981-October 1982) till June 30, 1982 was 7.1 million tonnes as against 5.6 million tonnes during the corresponding period last year.

The Union Government released an export quota of 5.8 lakh tonnes of deoiled bran for 1982-83 — the same as that for 1981-82.

The price of rice (basmati) in the Delhi market increased by 8.7 per cent during the month to Rs 550-700 per quintal.

Wheat

The United Nations Food and Agriculture Organisation (FAO) estimated that the total wheat production in India this year would be one million tonnes more than the previously estimated 37.5 million tonnes because of heavy pre-monsoon rains.

During the 1982-83 rabi marketing season (April 1982-March 1983) wheat procurement was 7.4 million tonnes till the end, 1982 as against 6.3 million tonnes during the corresponding period last season and total procurement of 6.6 million tonnes last year. Punjab procured

4.7 million tonnes as against 3.6 million tonnes during the corresponding period last year. Haryana procured 1.2 million tonnes as against 1.1 million tonnes last year. Uttar Pradesh procured 1.1 million tonnes as against 1.3 million tonnes last year. Rajasthan procured 93,000 tonnes as against 9,000 tonnes last year. The price of wheat (desi) in the Delhi market declined by 10 per cent during the month to Rs 230-265 per quintal.

Jute

The production of jute in West Bengal during 1982-83 was expected to be lower by 1.5 million bales than the targeted 4.2 million bales as a result of drought.

The Union Cabinet approved a proposal to raise the cess on jute goods. It also approved the setting up of a jute fund with the proceeds of the cess. The fund would be administered by a reconstituted Jute Manufacturers Development Council.

Production of jute goods in May declined by 7,065 tonnes to 87,273 tonnes as against 94,338 tonnes in April. Stocks at the end of May were 87,700 tonnes as against 89,800 tonnes at the end of April.

The Union Commerce Ministry decided to approach the Reserve Bank of India for raising the cash credit limits of the six nationalised jute mills from the existing rupees three crores to Rs 11.63 crores as recommended by the Tandon Committee.

The Soviet Union purchased 16,000 tonnes of jute goods for delivery in July.

The Indian Jute Mills Association was reported to have decided on June 27 to suspend production during evening hours — between 6 p.m. and 10 p.m. — as a result of the power cut in West Bengal and to overcome "excess production".

The price of jute (W-5) in the Calcutta market ruled steady during the month at Rs 240 per quintal.

Cotton

The Cotton Corporation of India (CCI) purchased 10.01 lakh bales of cotton in the current season (September 1981-August 1982) till July 2, 1982. In Gujarat its purchases totalled 2.41 lakh bales valued at Rs 57 crores as against 2.16 lakh bales valued at about Rs 50 crores in the previous season. In Rajasthan, the purchases of the corporation till the same date were 1.32 lakh bales as

against 1.29 lakh bales in the previous season.

The Cotton Development Research Association of South India Mills Association (SIMA) Coimbatore, has evolved a high yielding medium staple variety of cotton LRA-5166 for cultivation in both rainfed and irrigated tracts. The new variety has the potential to replace traditionally grown Laxmi variety in the rainfed areas of Tamil Nadu.

The export quota for Bengal deshi cotton sanctioned for the cotton year September 1981-August 1982 is not likely to be reached in view of the poor supply of this variety of cotton in the domestic market. As against a sanctioned quota of 50,000 bales for the year, exports up to June 19 were only 15,000 bales.

Over the month the price of cotton (CJ-73) in the Bombay market rose by 5.3 per cent to Rs 1,111 per quintal.

Edible oils

A special group set up by the Union Agriculture Ministry has taken up preparation of a blueprint for the national project on oilseeds. Vigorous efforts were being made to increase the production of oilseeds to 13.5 million tonnes during 1982-83.

The Union Government released an export quota of three lakh tonnes of groundnut extractions for the current year (1982-83) as against 6.18 lakh tonnes released last year. Exports would be allowed on a first-come-first-served basis and preference would be given to co-operative units.

Vanaspatti production during the current oil year (November 1981-October 1982) is expected to be higher at nine lakh tonnes as against 8.25 lakh tonnes in 1980-81. Supply of imported edible oils for vanaspatti manufacture is being maintained at 60 per cent of last year's production.

The price of groundnut (kernels) in the Kanpur market rose by 15.3 per cent during the month to Rs 590-650 per quintal.

Sugar

Sugar production during May 1982, the eighth month of the current season (October 1981-September 1982) was 8.16 lakh tonnes as against 0.77 lakh tonnes in the same month last year. The total production during the first eight months

SPOT PRICES OF AGRICULTURAL COMMODITIES : JUNE 1982

(Rs per quintal)

Commodity	Market	Variety	June 30, 1982	May 31, 1982	June 30, 1981	June 30, 1980	Percentage variation on June 30, 1982 over		
							a month	a year	two years
I. Foodgrains									
(1) Rice	Delhi	Basmati	550-700	500-650	450-550	275-575	8.7	25.0	47.1
	Hapur	Basmati	480-500	480-500	475-520	460-500	—	-1.5	2.1
	T P Gudam	Fine	320	320	308.11-310.81	270.27-283.78	—	3.4	15.5
(2) Wheat	Bhatinda	Farm	137-160	137-160	137-143	140-150	—	6.1	2.4
	Delhi	Deshi	230-265	250-300	190-225	160-185	-10.0	19.3	43.5
	Rohtak	Dara	145-175	142-165	130-148	117-130	4.2	15.1	29.6
(3) Barley	Bhatinda	Average	100-111	100-111	108-130	110-118	—	-11.3	-7.5
	Hapur	Average	105-110	117-120	118-125	122-125	-9.3	-11.5	-13.0
(4) Jowar	Shrirampur	Average	165-192	190-202	180-220	133-148	-8.9	-10.8	27.0
	Karnal	Average	129-136	127-134	140-175	115-129	1.5	-15.9	8.6
(5) Bajra	Ahmedabad	Average	140-160	140-165	160-170	120-142	-1.6	-9.1	14.5
	Shrirampur	Average	150-180	185-210	185-200	160-178	-16.5	-14.3	-2.4
(6) Maize	Hapur	Average	135-140	160-165	140-170	132-150	-15.4	-11.3	-2.5
	Karnal	Average	145-155	148-155	148-160	112-122	-1.0	-2.6	28.2
(7) Gram	Bombay	Deshi	265-275	261-265	365-470	305-315	2.7	-35.3	-12.9
	Hapur	Average	240-280	260-290	300-350	250-285	-5.5	-20.0	-2.8
	Rohtak	Kabli	495-650	400-520	410-470	288-292	24.5	30.1	97.4
II. Fibres									
(1) Cotton	Bombay	Varalaxmi(A)	1,659	1,603	1,898	1,687	3.5	-12.6	-1.7
	Bombay	CJ-73	1,111	1,055	1,378	—	5.3	-19.4	—
	Bombay	L 147(A)	1,406	1,350	1,561	1,125	4.1	-9.9	25.0
	Bombay	A-51-9	1,378	1,350	1,525	1,111	2.1	-9.6	24.0
	Bombay	Bengal deshi	1,153	1,111	1,040	703	3.8	10.9	64.0
(2) Jute	Calcutta	W-5	240	240	217.5	206	—	10.3	16.5
III. Groundnut and its oil									
(1) Groundnut (Kernels)	Bombay	Karad Bold	615	600	589	460	2.5	4.4	33.7
	Kanpur	Average	590-650	535-540	750-830	535	15.3	-21.5	15.9
	Rajkot	Average	466.67	466.67	516.67	383.33	—	-9.7	21.7
(2) Groundnut oil	Bombay	—	1,406.6	1,281.80	1,385	1,025	9.7	1.6	37.2
	Madras	—	1,280	1,215	1,350	1,000	5.3	-5.2	28.0
	Rajkot	—	1,135	1,135	1,332.50	950	—	14.8	-14.8
IV. Others									
(1) Sugar	Bombay	C-30	524-533	545-555	669-670	625	-3.9	-21.1	-15.5
	Hapur	—	525-550	490-540	690-720	610-625	4.4	-23.8	-13.0
(2) Khandsari	Hapur	Average	350-460	350-425	480-540	480-540	4.5	-20.6	-20.0
	Delhi	Deshi	480-540	460-535	640-660	540-560	2.5	-21.5	-7.0
(3) Tea	Hapur	Dhaia Superior	225-230	210-215	270-285	335-340	7.1	-18.0	-32.0
(4) Tea	Bombay	Average	2,400	2,400	2,300	2,400	—	4.3	—

October 1981-May 1982) was 79.52 lakh tonnes as against 50.43 lakh tonnes during the corresponding period of 1980-81. The matches during the month were 4.32 lakh tonnes for internal consumption and 4.65 lakh tonnes for exports as against 4.65 lakh tonnes for internal consumption and nil for exports during the same month last year.

The total offtake during the first eight months of the current season was 32.29 lakh tonnes for internal consumption and 4.65 lakh tonnes for exports as against 32.29 lakh tonnes for internal consumption and 4.65 lakh tonnes for exports during the corresponding period last year. The total closing stocks of sugar in the factories as on May 31, 1982 were 52.94 lakh tonnes as against 25.20 lakh tonnes at the end of May 1981.

The Union Government released 4.94 lakh tonnes of sugar for July 1982 — the same as that for June. This would consist of 4.94 lakh tonnes of levy sugar and 4.94 lakh tonnes of free sale sugar.

The Centre has directed the State Trading Corporation (STC) to expedite negotiations for export of sugar to fulfil the country's quota of seven lakh tonnes. The STC had finalised contracts for 4.5 lakh tonnes, of which two lakh tonnes were shipped till June 30.

Sugarcane production during the 1981-82 season was estimated at 180 million tonnes as against 153 million tonnes in 1980-81. Sugar production this year is expected to reach a level of 84 lakh tonnes.

The tariff value for free sale sugar has been raised by Rs 10 to Rs 440 per quintal with effect from July 1, 1982.

In the Hapur market the price of sugar has increased by 4.4 per cent during the month to Rs 525-550 per quintal.

The Union Finance Ministry has announced substantial incentives to export of value-added tea such as drawback on basic excise duty, refund of customs duty paid on imported filter paper etc.

The Tea Board has decided to set up a research centre at Dehra Dun to undertake collaborative programmes for promotion of tea cultivation in Uttar Pradesh.

The Union Government has sanctioned Rs 41 crores to the Tea Board for the current year for the development of tea states. The industry's annual require-

ment is estimated at Rs 60 crores. The gap of Rs 19 crores will be met from financial institutions and banks.

The Centre has approved a joint venture between an Indian company and an Australian firm for packaging and blending of tea for exports. India will export to Australia five lakh kg of tea between July 1982 and March 1983, valued at rupees two crores.

The price of tea in the Bombay market ruled steady at Rs 2,400 per quintal during the month.

COFFEE

The Union Government reduced (July 1, 1982) the rate of export duty on coffee from Rs 300 to Rs 120 per quintal with effect from June 1, 1982 but raised it again to Rs 190 per quintal with effect from July 5, 1982 having regard to the variation in the international price of coffee.

Coffee production in the country was expected to go up to two lakh tonnes by 1990-93 according to Mr Venkataratnam, the outgoing chairman of the Coffee Board. He said that in order to achieve this target, expansion programmes had been adopted in 11 States in the country.

RUBBER

The State Trading Corporation has permitted the sale of imported natural rubber on the high seas to eligible industries. Of the import quota of 30,000 tonnes during the current year 1982-83, about 10,000 tonnes of rubber had arrived by June-end.

The Union Finance Ministry withheld further exemption of customs duty on natural rubber imported by the State Trading Corporation. It may be recalled that all imports till April 1982 were exempted from the customs duty.

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Adroit 190

A golden opportunity from A

EQUITY ISSUE OPENS: 16TH AUGUST 1982

In a few days from now, Asian Paints will open its doors to the public with an issue of Equity Shares. Here are the highlights of the Equity Issue.

Present Equity Base:

Rs. 3.5 crores comprising 35,00,000 Equity Shares of Rs. 10 each fully paid-up including Rs. 3.4 crores issued as Bonus Shares over the years.

New Issue:

16,85,185 Equity Shares of Rs. 10 each at a premium of Rs. 13 per share, of which 15,67,222 shares are being offered to the public.

Non-Residents:

The Company has been permitted to issue 4,21,296 shares to non-resident Indians and persons of Indian origin abroad.

Earnings per Share:

Rs. 4.88 per share after tax (for the year 1981 after taking into account the 2:5 Bonus Issue made in early 1982).

COMPANY'S PAST PERFORMANCE

- Rupee Sales have gone up by 42 times in 20 years! Since 1967 Asian Paints has continued to be the largest paint company in India.
- Gross Profit has leaped up 27 times in 20 years!
- A shareholder with one share of Rs. 100 in 1961 has received Rs. 3,470 by way of dividends — plus Rs. 3,400 worth of Bonus Shares!
- Equity shareholders' funds have gone up to Rs. 753 lacs — from an original investment of just Rs. 10 lacs!

COMPANY'S FUTURE PROSPECTS

- Excellent market growth potential: Company's brands enjoy leadership and countrywide acceptance.
- Company will also earn increasing revenue from overseas operations (dividends and royalties from joint ventures).
- Expansion project at Ankleshwar will substantially enhance production capacity and will be entitled to attractive tax benefits (under Section 32A, 80I and 80HH of the Income Tax Act) plus Central and State Cash Subsidies and Sales Tax benefits.
- Diversification project for Synthetic Rubber Latexes will open new markets in tyre, textile and paper industries.
- Company has a strong and dedicated professional management team which has proved its dynamism and business integrity.

COMPANY'S 1981 PERFORMANCE AT A GLANCE

	Unit	1981
• Gross Sales	Rs. in lacs	6,687
• Profit before tax	Rs. in lacs	511
• Equity & Reserves	Rs. in lacs	753
• Earnings per share	Rs.	4.88*
• Dividend	%	15.00*

(* on enhanced capital after Bonus Issue in 1982)

Paints!



Managers to the Issue
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SPECIAL REPORTS

What NABARD will do

BOMBAY

THE National Bank for Agriculture and Rural Development (NABARD) came into existence on July 12, 1982 and started functioning from July 15. The bank took over the functions of the Agricultural Refinance and Development Corporation (ARDC) and the refinancing functions of the Reserve Bank in relation to state cooperative banks and regional rural banks. It will provide refinance to banks for production and investment credit for agriculture, small-scale industries, cottage and village industries, handicrafts and other allied activities. Mr M. Ramakrishnayya, Deputy Governor of the Reserve Bank and chairman of ARDC, will be chairman of the bank. Mr Sant Dass, managing director, ARDC, will be managing director.

The bank's share capital of Rs 100 crores will be held by the Reserve Bank and the Government of India in equal proportions. For term loan operations, the bank will draw funds from the Government of India, the World Bank, other multilateral and bilateral agencies, the market and the National Rural Credit (Long Term Operations) Fund. Funds will be drawn from the National Rural Credit (Stabilisation) Fund for converting short-term loans into medium-term loans. For short-term operations, the bank will draw funds mainly from the Reserve Bank.

The bank will provide short-term credit to state cooperative banks, regional rural banks and other financial institutions repayable over a period not exceeding 18 months for agricultural operations or marketing of crops, of inputs, for commercial and trade transactions, production and marketing of products in the small, cottage and village industries sector.

The short-term loans granted to state cooperative banks and regional rural banks can be converted into medium-term loans for a period not exceeding seven years under conditions of drought, famine, natural calamities, military operations or enemy action. NABARD



Mr M. Ramakrishnayya

will give medium-term loans for periods not less than 18 months and not exceeding seven years to state cooperative banks and regional rural banks for agriculture and rural development. It will give long-term loans and advances by way of refinance to land development banks, regional rural banks, scheduled banks, state cooperative banks and other financial institutions.

Commerce decided to interview Mr Ramakrishnayya, chairman of NABARD for a better understanding of the purpose and functions of the new bank.

Commerce: Why was it necessary to set up a separate bank for agriculture and rural development?

Ramakrishnayya: The Reserve bank of India (RBI) originally started giving agricultural credit. As the need for agricultural credit grew the RBI set up the Agricultural Refinance Corporation which was subsequently rechristened the Agricultural Refinance and Development Corporation (ARDC). But, the terms of its statute did not permit it to support activities not connected with agriculture. As the Sivaraman committee

stated in its interim and final reports on a national level arrangement for institutional credit for agriculture and rural development, a major deficiency of the ARDC has been its inability to ensure that borrowers under its schemes get the necessary supporting short-term credit and thus build up their earning and repaying capacities. The committee also found that the ARDC's support to activities not based on land had not reached a significant level compared to the need to promote such activities in the context of integrated rural development. As regards the RBI, the committee found that because it had to combine diverse functions and duties, including rural credit, it was legitimate to ask whether its top management and policy making bodies would in practice, be able to set aside, amidst its multifarious responsibilities, the necessary time for giving attention, direction and focus to the details of the complex credit problem of integrated rural development in future. The RBI's functions have increased so much and everytime a function becomes too much, they hive it off and start a separate institution. NABARD was set up because the RBI found it necessary to have an apex institution to deal with all problems of agriculture and rural development.

Commerce: In what respect is the working of the new bank going to be different from the Reserve Bank and the ARDC?

Ramakrishnayya: ARDC was a separate corporation looking after term loans for agriculture only. There are many other aspects of rural development — village industries, handicrafts, retail trade — for instance, that ARDC is not able to finance. The new bank has combined the entire ARDC and a part of RBI — the agricultural credit department and the rural planning and credit cell of the RBI. The ARDC gave term loans and the RBI gave short term loans in the past. To ensure better coordination between term loans and working capital requirements, it will

ided to marry the two. Through this ordination, a completely new area will covered.

Commerce: *What pattern of organisation of the bank adopt and how will the organisational pattern be helpful in achieving the objectives of the bank?*

Ramakrishnayya: NABARD is an apex institution. It will work through banks like commercial banks, cooperative banks and regional rural banks. The financing will be done through them. To help these banks, NABARD will have offices in every state and union territory. We are even thinking in terms of opening offices below the state level, for groups of districts and eventually at every district level. We have started the bank with the existing staff, but will recruit more staff. NABARD needs financial and technical experts, hydrogeologists, mechanical engineers, forestry experts, horticulturists, animal husbandry specialists, sericulture specialists and handloom experts to develop the rural areas with technological parameters. The ARDC already has hydrogeologists and forestry experts, but in other areas NABARD will have to build up expertise. This will help the bank to prepare, appraise, monitor and implement schemes of rural development.

Commerce: *NABARD is to take over from the RBI its refinancing functions in relation to state cooperative banks and regional rural banks. This implies that cooperatives will henceforth be under NABARD. How will NABARD tackle the problem of overdue of cooperatives and revive the inactive ones?*

Ramakrishnayya: NABARD will have to work through state governments by enforcing financial discipline and persuading state governments to adopt realistic policies for collecting overdue. NABARD will also promote campaigns to spread the repayment ethic. One of NABARD's important programmes is also to reorganise primary cooperatives and make them viable units. We will have to use the carrot and stick approach here. There are about a lakh of cooperatives at the primary level. We would like to reorganise them into viable units of 80,000 to 90,000. In this process the inactive ones will be weeded out. The main problem with the primary cooperatives is that they are too small to engage any trained personnel to serve their needs. NABARD will attempt to provide trained personnel who can devote their know-

ledge and skills to the development of the cooperatives over a period of time. In some states such as Kerala and Punjab, cooperatives are very active. In Maharashtra, they have become inactive. Land development banks in the states also need strengthening. NABARD will now assist the land development banks and state cooperative banks to build up key personnel for better appraisal and monitoring of projects and give them assistance for four years. Part of NABARD's R&D fund will be used for this purpose.

Commerce: *Does NABARD see the possibility of integrating the functions of cooperative banks and regional rural banks?*

Ramakrishnayya: There will be no integration of cooperative banks and regional rural banks. Cooperative banks service only their members and sometimes work on a caste basis. Regional rural banks service everybody. It is meant to be a multi-agency system.

Commerce: *What will be the function of the bank's R&D fund? Will NABARD itself undertake research or finance others? If the bank undertakes research, what organisational structure does it visualise for the research wing? If the bank is going to finance others, who will be eligible for the assistance?*

Ramakrishnayya: Since development is institutional, on the development side some assistance will be given to banks. On the research side, the essential

purpose is to finance applied research in sociological and economic subjects. For instance, how funds are being utilised and the problems that come in the way of deriving full benefit from investments. The R&D fund would also help to develop action research programmes, develop new agronomic practices, new methods of rural management and water distribution. If a new method or practice has already been proven, NABARD would support the extension and application of that. NABARD's R&D fund will be used mainly to finance research and development by others in these areas. Institutions, universities, centres for development, even private bodies are eligible and can apply for research assistance. NABARD may also sponsor coordinated research by institutions in the country. NABARD could also undertake research studies itself as the ARDC did on its own.

Commerce: *What tangible benefits could we expect to flow from this new apex organisation which were not available so far?*

Ramakrishnayya: The new bank will benefit a new area of rural development for which there was no proper system of term loans. Through technical back-up, NABARD will make broad technical guidance available to commercial banks and cooperative banks. Another advantage is that at the national level, there will be one institution responsible for studying and helping rural development in all its aspects where institutional credit can play a part.

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

	Quality	Rs per kg				Percentage variation on July 23, 1982 over		
		July 23, 1982	July 16, 1982	June 25, 1982	July 24, 1981	a week ago	a month ago	a year ago
Rice	Average	4.75	4.75	4.25	3.50	—	11.8	35.7
Wheat	Average	4.00	4.00	3.60	3.50	—	11.1	14.3
Jowar	Average	3.00	3.00	3.00	2.20	—	—	36.4
Bajra	Average	3.00	3.00	3.00	2.20	—	—	36.4
Gram dal	Average	5.50	5.20	5.00	6.20	5.8	10.0	11.3
Tur dal	Average	7.50	7.50	7.00	6.50	—	7.1	15.4
Potatoes	Average	2.50	2.50	2.50	2.00	—	—	25.0
Onions	Average	1.50	1.50	1.50	1.50	—	—	—
Milk per litre	Buffalo	7.00	6.40	6.00	5.00	9.4	16.7	40.0
Tea	Average	26.00	26.00	24.00	23.00	—	8.3	13.0
Coffee	Average	20.00	20.00	19.00	17.50	—	5.3	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.55	1.55	1.55	1.55	—	—	—
Sugar	Average	5.80	5.50	5.50	6.50	5.5	5.5	10.8
Gur	Average	6.00	6.00	5.00	6.00	—	20.0	—
Groundnut oil	Average	15.00	15.00	15.00	15.00	—	—	—
Vanaspoti	Average	17.00	17.00	17.00	16.00	—	—	6.3
Toilet soap	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

Corporate funds without tears!

By Commerce Research Bureau

WORKING capital funds are required to finance current assets — and more specifically to finance current assets which are not supported by current liabilities. The truth of this statement lies in the fact that by definition working capital means current assets (inventories, accounts receivables and cash and bank balances) *minus* current liabilities (accounts payables, advance payments from customers and accrued expenses). The amount of working capital funds required can be reduced by enlarging the proportion of current assets supported by current liabilities. In this endeavour, trade credit from suppliers which increases accounts payables, and advance payments from customers which generates negative accounts receivables assume importance. Since working capital management focuses attention on how to finance current assets which are not supported by current liabilities, trade credit remains largely outside the spectrum of variables considered in this context.

An ingenious way of reducing the

amount of current assets required to be financed by working capital funds is through increasing the advance payments from customers, another item of current liabilities. It is interesting to know from a statement in the Lok Sabha made by the Industry Minister, Mr N.D. Tiwari to the effect that huge amounts are being collected by some companies as advance payments from customers. Mr Tiwari has stated that Bajaj Auto Ltd has collected Rs 57 crores by way of deposits of Rs 500 each from intending customers of the M-50 motorcycles of the Company. He also said that Tata Engineering and Locomotive Company Ltd, Ashok Leyland Ltd and Bajaj Tempo Ltd have collected Rs 42 crores; Rs 14 crores and Rs 8 crores respectively from their intending buyers.

This piece of information assumes special significance at this particular juncture when phrases such as "resources constraints", "decelerating deposits growth", "credit crunch" and "weakening response to capital issues" are being used more frequently than before. Advance payments from customers is a double-

edged weapon which eliminates accounts receivables as an item of current assets and which at the same time cuts down the amount of current assets *not* supported by current liabilities. Data given in the accompanying table show that advance payments from customers is an important source of funds to the companies mentioned therein during the five-year period 1977 to 1981. As proportions to long-term and short-term borrowings, advance payments from customers varied between 3 per cent and 133 per cent for these companies during this period. The rates of increase in advance payments from customers have also kept pace with those in long-term and short-term borrowings except for Escorts Ltd. In fact, the latest data given in the Lok Sabha indicate very steep rise in them recently.

The recent spurt in advance payments from customers in respect of the companies in question have implications to the larger issue of savings mobilisation in the economy. They evidence the diversion of investible funds from the normal channels of savings-flow. Instead of short-term savings moving from savers to banks and in turn from banks to companies, they get diverted and move directly into companies. Therefore, in the near future, in addition to rationalisation of interest rate structure, introduction of competitive savings-instruments etc., "customers' credit" to companies will also appear as a decision variable in the debates on resources mobilisation in the forums of Government, financial institutions, banks and private corporate sector.

Advance payments from customers vis-a-vis borrowings: Some instances

(Rs in crores)												
Year	Bajaj Auto Ltd. Year end: June			Bajaj Tempo Ltd. Year end: September			Escorts Ltd. Year end: December			Tata Engineering and Locomotive Co. Ltd. Year end: March		
	Advance pay-ments	Long-term borrow-ings	Short-term borrow-ings	Advance pay-ments	Long-term borrow-ings	Short-term borrow-ings	Advance pay-ments	Long-term borrow-ings	Short-term borrow-ings	Advance pay-ments	Long-term borrow-ings	Short-term borrow-ings
1977	0.17	1.89	3.84	0.15	1.60	2.96	8.16	6.12	4.83	5.31	33.97	84.68
1978	0.29	2.00	0.63	0.28	2.47	3.03	8.04	10.13	5.68	8.98	36.73	83.46
1979	0.46	2.30	1.95	2.47	2.89	2.39	8.07	9.60	9.55	15.63	37.81	72.63
1980	0.36	3.53	6.20	5.75	3.99	3.62	7.98	8.77	11.18	25.67	34.36	143.03
1981	0.63	4.42	7.78	10.29	3.98	3.75	7.38	8.25	18.89	22.86	73.47	84.27

Note: Advance payments represent "Advance against orders and deposits from dealers and others" for Bajaj Auto, "Advances and deposits against orders from customers" for Bajaj Tempo, "Advance payments" for Escorts and "Advance and progress payments" for Tata Engineering and Locomotive Co. as per their respective annual reports.

Commerce Research Bureau

One bank for every 17,000 rural people

BOMBAY

COMMERCIAL bank branches continued to expand and notable progress was made in the year ended June 1982. Unbanked centres continued to receive special attention. About 2,918 new bank offices were opened during the first nine months of the year — July 1981 to March 1982. Of these about 2,275 offices were opened in unbanked centres. With the opening of these new offices, the average population per bank office in the country has come down to 18,000 from 19,000 in 1981.

The number of new bank offices opened from June 1969 to March 1982 totalled 31,105, of which 17,902 offices were in unbanked centres and 13,203 offices in banked centres. Of the 2,918 new bank offices opened between July 1981 and March 1982, 28 public sector banks accounted for 1,558 offices, regional rural banks for 1,201 offices, and private sector banks for 159 offices.

Commercial banks continued to pay special attention to rural areas opening more branches in these areas. At the end of March 1982, there were 19,942 rural bank offices representing 51.6 per cent of the total number of offices against 17,650 offices representing 49.4 per cent of the total in June 1981. There were barely 1,832 rural bank offices before nationalisation representing 22.1 per cent of the total 8,262 offices.

The Reserve Bank has announced a new commercial bank branch licensing policy for the three years 1982-83 to 1984-85. The policy seeks to ensure that bank branches are well spread out in rural areas and no unbanked areas are left uncovered. By the end of March 1981, RBI aims at having one bank office for an average population of 17,000 in rural and semi-urban areas.

Commercial banks continued to ensure an increasing flow of funds to priority sectors (agriculture, small-scale

industries, transport operators, professionals, self-employed persons, retail trade and small business.) The priority sectors together accounted for loans and advances amounting to Rs 10,412 crores at the end of December 1981, against Rs 8,017 crores in December 1980. Their share in total bank credit was 37.1 per cent, against 35.0 per cent.

Total deposits of commercial banks as of March 1982 stood at Rs 43,750

crores, against Rs 37,988 crores in the previous year and Rs 4,646 crores in June 1969.

According to a RBI press release, a working group constituted to identify the role the banking system should play in effectively implementing the 20 point programme has submitted its report. The committee was chaired by RBI's Deputy Governor, Mr A. Ghosh.

Opening of new bank offices

	Unbanked areas	Banked areas	Total
State Bank of India			
July 1981 — March 1982	183	121	304
July 1969 — March 1982	2,419	1,993	4,412
Associate banks of SBI			
July 1981 — March 1982	114	54	168
July 1969 — March 1982	1,049	905	1,954
20 nationalised banks			
July 1981 — March 1982	800	286	1,086
July 1969 — March 1982	7,836	6,490	14,326
Regional rural banks			
July 1981 — March 1982	1,108	93	1,201
July 1969 — March 1982	4,051	762	4,813
Private sector banks			
July 1981 — March 1982	70	89	159
July 1969 — March 1982	2,547	3,053	5,600
All commercial banks			
July 1981 — March 1982	2,275	643	2,918
July 1969 — March 1982	17,902	13,203	31,105

IFC's two new schemes

NEW DELHI

THE Industrial Finance Corporation of India (IFCI) has started two new schemes for youth self-employment and the revival of sick units in the small scale sector. Under the first scheme, a soft loan will be given to unemployed youth between the ages of 21-35 through a specialised agency. The loan will meet part of the entrepreneur's requirement for margin money required by the bank or financial institution for the project. The soft loan can be of any amount equivalent to 25 per cent of the margin money required by the bank or financial institution. It will be interest-free for the first year and carry a

concessional rate thereafter. The limit will be raised to 30 per cent for an applicant from a scheduled caste or tribe. To qualify for the loan the applicant will have to undergo an entrepreneur development programme organised by a specialised agency.

Under the scheme of assistance to sick units, fees charged by a technical consultancy organisation for suggesting and implementing a rehabilitation programme will be covered up to 80 per cent by IFCI. IFCI will also subsidise feasibility studies prepared by technical consultancy organisations for small entrepreneurs up to the extent of 80 per cent.

CALCUTTA

AN important feature of the latest annual general meeting of the Indian Jute Mills Association was the remarkably constructive speech by the chairman, Mr G. Sivaraman, which brought forth an equally constructive response from the Central Government spokesman, Mr A.K. Dutt, secretary (textiles), who was the chief guest. Refreshingly free from the usual broadsides against government policies concerning the industry, the speech, after referring to the worst crisis in the history of the jute industry, went on to make some suggestions as to how the affairs of the industry could be managed better and its viability improved.

Take the vexed issue of modernisation, for instance. Mr Sivaraman admitted that modernisation was a vital need but then the industry must have the necessary wherewithal to fund the programme and be permitted to acquire the right equipment. He maintains that the type of jute machinery being produced in the country is only an exact copy of models that were already 30 years old. So replacing existing equipment by indigenous products would involve huge investments without a commensurate return in terms of quality or even quantity. The whole approach and the concept to modernisation should, therefore, change. If the jute industry is to survive in competition with synthetics in the international market, it has to produce substantially lighter fabrics with much greater performance capabilities from the end-use point of view and this will be possible only if the whole technique of spinning and weaving is modernised.

Town development project in M.P.

The M.P. State Town and Country Planning Department with the assistance from the World Bank and the Government of India, has prepared a Town Development Project which envisages investment of Rs 64.10 crore. The project, which will include Bhilai-Durg, Indore, Ujjain and Dewas and eight other small and medium towns, is proposed to be implemented during 1983-86. The Project has been accepted in principle. Under the project, work on improvement in slum areas, development of plots for housing and improvement in town management will be undertaken.

Jute: Demand for dual pricing

From P.C. MAHANTI

Mr Sivaraman then went on to add that the technology for the production of very light yarn using low jute batch on a high speed twistless wrapped spinning machine is already available. Modern looms with high productivity are also available. Admittedly, the capital cost will be high, but these will be compensated by a substantial reduction in the raw material cost and in reduced mandays per tonne by as much as 50 per cent.

With the modernisation of equipment, appropriate marketing techniques should be followed to sell jute goods in the overseas market which still absorbs 33 per cent of total Indian production. Mr Sivaraman thinks that the best way of tackling the problem of market fluctuations in a commodity like carpet-backing is to channelise all exports of this particular category of jute product through a consortium of manufacturing mills and the State Trading Corporation. This approach will enable maintaining stable prices, supplies, buffer stocking and even pooled shipment for freight savings. In addition to the cash assistance, the difference between the cost of production and the realisable sale price should be shared between the consortium members and the STC so that both output and foreign exchange earnings can be maintained at a steady level. The same type of consortium arrangement can work to revive the lost export market in sacking.

Dual pricing

The IJMA chairman is in favour of a dual pricing system for the internal sale as well as those meant for exports. But these can be effective when the principle of dual costing is also introduced. Products meant for internal sales should involve larger inputs of mandays or machine hours, but lower input of raw material for the unit, by the development

of closely woven lighter fabrics. The merit of the system will be that while the overall sale price per unit can be kept at existing levels, full employment can be ensured. The products for export will be made on high speed machines, which will produce much lighter and cheaper fabrics with low labour loading at the same time.

Reacting to Mr Sivaraman's suggestions, Mr A.K. Dutt, secretary (textiles) of the Union Commerce Ministry, said he was in favour of a consortium approach to exports, but the industry should leave it to the State Trading Corporation or National Jute Manufacturers Corporation when exporting has to be done at a loss over and above the cash subsidy which the government provides. As for the internal market, Mr Dutt has said that while it is not possible to organise regular DGSD purchases because of the seasonal nature of the demand, the government has asked the cement industry to avoid using old or second hand bags and the fertiliser industry to discard synthetic packaging.

Perspective plan

These are short-term measures meant to tackle short-term problems. The industry must draw a perspective plan for orderly and long-term development. There must be proper cost-benefit analysis of the investment plans to make new and lighter products and government would encourage all deserving schemes. After all, the industry is already selling nearly 70 per cent of its output in the internal market and the demand for lighter or finer jute fabrics abroad shows every sign of improvement. The current setback in exports is on account of the recession in the west and as such is a temporary phenomenon. Sooner or later, the overseas demand for Indian jute goods will revive, and the 1.3 and 1.4 million tonnes of jute goods that India has been producing at the moment, does not indicate any overcapacity despite periodic supply-demand imbalances.

There need be no doubt about the jute industry's future prospects considering the fact the internal demand stemming from industrial and agricultural production will continue to rise and sooner or later India will be in danger of becoming a residual exporter of jute goods. Till then, of course short-term problems like the ones the industry is passing through will arise from time to time, but they should not frighten the mills into giving up long-term planning for future development.

CHANDIGARH

SET up with much fanfare and with laudable aims, most of the 30-odd state-owned corporations in Haryana have actually been a burden on the State exchequer because of the continuing losses they incur. Many of them have turned out to be cosy nests of political patronage, and the chairmanship has gone in almost all cases to politicians whom the Chief Minister of the time wanted to oblige or accommodate to ensure political support. Whatever the complexion of the party in power, the state of the corporations has remained virtually unchanged. The network has been maintained at a heavy cost to the taxpayer even though

Better scope for non-resident investment

The Reserve Bank of India has removed the restriction of the ceiling of rupees one lakh on the investment in the share capital of one company by the non-resident investors. Henceforth, irrespective of the amount involved, non-resident investors would be able to buy up to one per cent of the nominal value of the equity capital of a company. While granting permission to purchase shares through a stock exchange, the Reserve Bank will also grant permission to designated banks to export the relative share certificates.

the process of industrialisation in certain areas, which they were supposed to promote, has remained unsatisfactory. In recent years Haryana has made notable progress in both agriculture and industry, but whatever achievements have been recorded are largely the result of private initiative, with or without State aid. The worst State corporations have been Haryana Tanneries, Haryana Conclast, Haryana Telibird and Haryana Matches.

Amidst the generally dismal scenario (in which several State corporations have been saved from extinction with great difficulty) there is a solitary shining example of good management and creditable performance in achieving the prescribed targets. The success story of the Haryana Financial Corporation (HFC), which has just broken all previous records in profits since its inception, leaves many similar corporations in other States way behind.

The figures relating to its operations, released on June 24 by its chairman (a

Haryana Finance Corporation A success story

From OUR CORRESPONDENT

senior official, not a politician) speak for themselves and reflect the rapid strides the corporation has made in 1981-82. It has been a year of remarkable success for it, at a time when most other State-managed corporations were in the red. The profit during the year was Rs 197 lakhs as against Rs 142 lakhs in 1980-81. The earning per share was Rs 48.38 against Rs 36.44 in 1980-81. The financial assistance it granted for industrial purposes recorded an increase of over 100 per cent — Rs 21.41 crores as against Rs 10.55 crores in the preceding year.

The financial achievement apart, the corporation has made a significant dent in the development of the backward regions of the State and in reducing regional imbalances. Unlike several other organisations with similar aims, HFC concentrated on the small-scale sector, about 95 per cent of the 372 industrial units it assisted being small and distinctly needy. About 40 per cent of the total credit facilities were also given to people in backward areas. Again, while many of the credit-giving bodies have suffered because of poor recoveries of loans extended by them to various types of units, the HFC topped in the recovery of loans last year in the country as a

whole. The corporation was adjudged the best of its kind in the country at a conference of financial bodies held in Bombay recently. And all this despite the fact that against the sanction for loans amounting to Rs 3.68 crores in 1977-78, the corporation extended financial assistance of Rs 21.16 crores in 1981-82, and the target for 1982-83 is Rs 30 crores. Its recovery of loans is 54 per cent while elsewhere the more the loans the lower the recovery.

The corporation has also taken steps to ensure (what several other Government-managed bodies have not) proper utilisation of its loans. This is sought to be achieved through a follow-up and monitoring cell. Another well-conceived step has been the opening of branches at district headquarters by way of decentralisation of its functions to avoid inconvenience to the customers and economise in both time and travel expenses.

Ironically, the institutions which are required to make profits in the State have been running at substantial losses, while the HPC, which is not an ordinary business institution and the main object of which is not to earn profits, has registered record profits!

However, as in most other State-managed organisations, the HFC also suffers from deficiencies — waste and inefficiency at lower levels and a certain degree of favouritism in the grant of loans. The recovery rate, though better than in many other cases, still indicates that about 45 per cent of public money is not recovered from the beneficiaries, even though the latter have made profits on their investment. Improvements in planning and more effective control would make the corporation even more useful to the State.

There is also further scope for a reduction in administrative expenditure. However, this corporation has a better record in this area than, say, the Haryana Small-Scale Industries and Export Corporation, whose administrative expenditure was recently estimated by the Vidhan Sabha's Committee on Public Undertakings at 40 per cent (Rs 22.34 lakhs against a turnover of Rs 55.57 lakhs during the five-year period 1974-75 to 1979-80).

**Bombay spot exchange rates of currencies
as on 26th July 1982**

(Currency units per Rs 100)

Country	Currency	Selling T.T.D.D	Buying T.T. Clean
Australia	A. \$	10.310	10.510
Austria	A. Schilling	175.40	178.90
Belgium	B. Franc	476.00	486.50
Canada	C. \$	13.140	13.385
Denmark	D. Kroner	86.80	88.50
France	Franc	69.60	71.05
Hongkong	H.K. \$	61.40	62.95
Italy	Lira	14054	14341
Japan	Yen	2609	2655
Malaysia	M. \$	24.25	24.68
Netherlands	Guilder	27.67	28.16
Norway	N. Kroner	64.90	66.25
Singapore	S. \$	22.07	22.47
Sweden	S. Kroner	62.45	63.75
Switzerland	S. Franc	21.18	21.58
UK	£	5.9635	6.0075
USA	\$	10.470	10.575
West Germany	D.M.	25.04	25.4

Source: Syndicate Bank, International Division,
Central Office, Bombay 400 021.

BONN

THE growing hostility towards foreigners in general and the Turks in particular led the West German Chancellor Mr Helmut Schmidt to call an urgent meeting of chief ministers of the German states, representatives of the churches and leading personalities in public to discuss the issue. At the meeting no one denied that politicians, who hailed the so-called "guest workers" from the neighbouring European countries in 1964, did not plan the necessary "integration" of the "guest workers" in German society.

life of their own Islamic tradition and style, which is "foreign" to the Germans.

This raises the question of tolerance of the minorities in West Germany. If one were to believe the findings of a recent opinion poll, the future of the minorities in West Germany would seem to be in danger. Every second German now says that even foreign children born in West Germany should be denied a permanent residence permit, while only one out of ten Germans believes that integration could be a solution. Some political parties have started exploiting

and foreigners is the influx of the so-called "political refugees" from non-European countries. The German press and even politicians give the impression that the asylum seekers are not political refugees but coming to West Germany to make their fortunes. German law is obliged to give shelter and food to all such "political refugees" till after years of complicated legal procedure a German court decision is pronounced on whether the asylum seeker should remain in the country or be deported. The impression that such "political refugees" live for years at the cost of German tax-payers is increasingly inculcated by the press and television in the minds of the Germans. Due to this foreigners in general, particularly those coming from non-European countries, are increasingly confronted with the hostility of the Germans.

Rising Xenophobia in West Germany

From RADHESYAM PUROHIT

As a result growing racial discrimination is now a marked German attitude in dealing with foreigners and as many as three quarters of Germans, according to an opinion poll, actually say foreigners are the cause of many German problems. The reason for the economic recession is not the foreigners living in West Germany but world factors. Yet the opinion recorders said, almost two million unemployed Germans think that their jobs had been taken by two million "guest workers". The presence of 4.5 million (including families) Turks, Spaniards, Portuguese, Greeks and others in Germany has created the so-called "anti-foreigner" attitude among the Germans.

This attitude of his countrymen remind the Chancellor of the time when "we blamed everything that bothered us on the Jews". The West German Government is worried by the growing public xenophobia and the diminishing willingness to integrate foreigners in West Germany. Experts are discussing ways to stop the influx, and where appropriate, to encourage repatriation.

In face of the growing discrimination, the Turks came out on the streets in procession, with big posters saying, "we do not want to be the Jews of tomorrow". In West Berlin, where more than 120,000 Turks are settled for generations, the tension is high. Some of the districts of the city are exclusively inhabited by the Turks. The city authority wants to modernise these districts, but it is helpless. The Turks, many complain, do not want to integrate themselves but want to live a the xenophobia by raising rightist slogans

like "Germany for Germans" or "Turks go home", or "Foreigners, quit Germany". Even in big political parties like CDU and SPD, the temptation to exploit the situation for vote catching is not ruled out. Only a handful of politicians have so far come forward to criticise the xenophobia as irrational and unrealistic.

Mr Heinz Kuehn, ex-Chief Minister of North-Rhein Westphalia and Bonn's adviser on "the integration of foreigners in West Germany", advocated a "non-bureaucratic system for the grant of German citizenship to foreigners". He warned his own government in clear terms that unless efforts were made to grant civil rights to the 4.7 million "foreigners" living in West Germany, there would be continuing hostility among Germans against foreigners and *vice versa*. While in Scandinavian countries even foreigners — after staying for a particular period — have the right of vote, in Germany genuine "guest workers", who pay taxes and help finance German social security and health insurance, are not entitled to vote even in municipal elections. German politicians refuse to allow the right to vote to foreigners living here for even more than 20 years. "Only German nationals have the right to vote", they argue and say that any kind of liberalisation would lead to more social unrest. But they also do not want to simplify the most complicated and bureaucratic procedure of granting German citizenship to foreigners.

One of the major reasons for the present tension between the Germans

On the other hand politicians have done little to protest against the lumping of 4.5 million foreigners living permanently in the country with a few thousand asylum seekers. It has now become customary to lump genuine and legally settled foreigners, who have paid DM 50 billion since 1962 for German social insurance, with the asylum seekers. Some German politicians have even started asking whether without foreigners, Germany would not have less crime, less acute housing shortage and full employment? In reality, even if all the 4.5 million guest workers were to return home, the two million unemployed Germans would not find work to do. "If the Turk Ali goes home, who works as a cleaner, how is the German Mueller, an unemployed teacher, to get work?", asks Mrs Liselotte Funcke, former Federal Minister of Health and now the Chief Adviser of the Bonn Government on Foreigners. According to her, the problem is being dramatised and political groups are trying to make capital out of it. She would like to start an intensive campaign against the German hostility towards foreigners.

Sociologists, however, say that the problem has taken the character of a time-bomb which has started ticking. Unless the German press, politicians and public make strong efforts to clear the misunderstanding, an explosion is inevitable. Already the public mood is in favour of abolishing the German constitutional right of granting political asylum to those who really need it. About 60 per cent Germans want that people, who are genuinely politically persecuted at home, should still be rejected.

TAMIL NADU Sourness enters sugar

MADRAS

THE sugar industry in Tamil Nadu expects to crush 82 lakh tonnes of sugarcane and produce 7.35 lakh tonnes of sugar as against an anticipated crush of 65 lakh tonnes of cane and production of 5.6 lakh tonnes of sugar. This is an all-time record in the annals of the State's sugar industry. This news may appear sweet but the industry is scared of the undesirable effects of overproduction unless the government steps in to avoid a crash in sugar prices.

The crushing season for 1981-82 is in full swing. Even earlier it was expected that the mills will crush a larger quantity of cane than in the previous year, thanks to the increase in the acreage under sugarcane on account of favourable prices offered for the crop during the previous season. There was also a large diversion of cane to sugar factories on account of low prices offered for gur. Normally, only 35 per cent to 40 per cent of the cane crop is sold to sugar mills and the rest goes for gur manufacture.

Sugar production is steadily on the increase in recent years. From 3.83 lakh tonnes in 1979-80 it increased to 4.5 lakh tonnes in 1980-81. The 1981-82 season's production will be almost double the previous year's level. In the entire country, 80 million tonnes of cane is expected to be crushed to produce 85 lakh tonnes of sugar in the current season. But actually the quantity to be crushed is outstripping the anticipated levels because of pressure from the government as well as from local farmers to crush unregistered cane also. However, the sugar mills, numbering 21, find it difficult to get extra credit for turnover operations as bank credit is restricted only to last season's operations. Consequently the mills are in arrears of payment to cane growers. Though the price fixed by the Centre is Rs 130 per tonne with 8.5 per cent recovery, the Tamil Nadu government is insisting on payment of Rs 165 per tonne. The mills are complying with this stipulation

by forgoing a portion of their profit on open market sales. Mills are, however, able to buy cane from the unregistered growers at a lower price.

The Union Government which is seized of the impending crisis in the sugar industry has accepted the need for a buffer stock to avert a crash in sugar price and help the mills to hold their head above water. But a number of alter-

natives are still under discussion. The first suggestion is that 50 per cent of the buffer stock should be held by the State Trading Corporation and the balance by the sugar mills. A second view is that the STC should hold the entire buffer stock. A third idea is that mills should hold the complete buffer stock. If this dithering continues the sugar industry will break under the burden of accumulated stocks.

Asean : World's fastest growth region

HONGKONG

THE five-member Association of South-East Asian Nations (Indonesia, Malaysia, Philippines, Singapore and Thailand) is economically the fastest growing region in the world, according to a recent analysis by the United States Department of Commerce. The UN Economic Survey of Asia and the Pacific also singled out this geographical area for its remarkable economic growth. Although world recession in 1981 reduced the average growth rate for advanced countries to less than 2%, growth rates in Asean ranged from 5% in the Philippines to 8% in Singapore, despite falls in the prices of leading export commodities and greater difficulties in marketing exports of manufactures.

"Constantly rising per capita income

(in the region) which last year averaged from a low of US\$567 in Indonesia to a high of approximately \$5,000 in Singapore offers a rapidly expanding market," of over a quarter of a billion people. The US officials note that the Asean today is America's fifth-largest trading partner with the US exports to the region last year totalling US\$8 billion.

Not only is the region expanding more rapidly than other developing areas, but it is expanding twice as fast as the industrialised countries. By 1990, Asean's Gross National Product will have doubled if the present growth rate continues.

Replacing obsolete machinery

LUCKNOW

THE Punjab, Haryana, Delhi Chamber of Commerce and Industry, has submitted a memorandum to the Economic Administration Reforms Commission subsequent to oral evidence before it. The chamber has stressed that to enable Indian industry to compete successfully in the international market, resources should be made available to replace obsolete plant and machinery and for modernisation.

Pointing out that the present system provides for depreciation on historical cost basis on the premise that replacement prices shall remain stationary throughout the life of the installation, the chamber has suggested that since the resource generation for replacement/renovation of plant should normally come through adequate provision of depreciation any scheme in this connection "should take into consideration the changing cost of obsolete replacement/modernisation."

Unofficial foreign currency rates in Hongkong
(Hongkong \$ as on July 19, 1982)

	HIGH	LOW	T.T.
Australian \$	5.95	5.89	6.0350
Belgian Franc (100)	11.50	10.50	12.640
British £	10.25	10.12	10.315
Burmese Kyat (100)	25.00	15.00	
Canadian \$	4.67	4.62	4.7135
French Franc	0.86	0.84	0.8695
Indian Rupee (100)	49.00	46.00	61.95
West German DM	2.39	2.35	2.4195
Indonesian Rupiah (100)	0.90	0.85	
Italian Lira (100)	4.90	4.50	
Japanese Yen (100)	2.320	2.295	2.3520
Korean Won (100)	0.77	0.72	
Malaysian \$	2.505	2.48	2.5165
Netherlands Guilder	2.16	2.135	2.1835
New Zealand \$	4.40	4.30	4.4455
Pakistan Rupee (100)	4.30	3.80	5.030
Philippine Peso	0.70	0.68	0.7000
Singapore \$	2.750	2.72	2.7620
South African Rand	4.50	4.00	5.1790
Sri Lanka Rupee (100)	27.00	22.00	
Swiss Franc	2.82	2.765	2.8590
Taiwan \$ (100)	14.30	14.00	
Thailand Baht (100)	26.10	25.40	

THE TATA ENGINEERING & LOCOMOTIVE COMPANY LIMITED

Statement of the Chairman, Mr. S. Moolgaokar, for the year 1981-82

For Telco, the financial year 1981-82 has been the best so far. Production went up nearly 30%. Overall manpower productivity increased significantly. Vehicle and excavator sales were higher than ever before. Economies of scale, improved productivity and cost reduction measures led to gross profits crossing the Rs. 100 crore mark. What has been achieved is indicative of the promise the future holds.

Telco has never really stopped growing, because what we have sown are the seeds of a sustained and steady 'real' growth, not merely numerical increases in sales or profits. The accent has invariably been on self-reliance and competitiveness through better products, more efficient manufacturing methods and, of course, higher productivity. Figures of higher production, sales and profits inevitably followed this 'real' growth.

THE TELCO WAY

Telco has not worked any miracles. We have only done what a developing country should expect from a large manufacturing company. Our approach to doing business is distinguished by the emphasis we place on building the capability of our team, on strengthening the affection of our customers and on fostering a culture which lays stress on ensuring success rather than explaining failure.

We believe that this emphasis is at the root of any striking results that we may have achieved. It also provides a rallying point for the spirit of our team: it breeds pride in being different and in achieving excellence.

WORTH OF PEOPLE

The real advantage enjoyed by Telco consists in the worth of the people it has. Whether it be an innovative designer, expressing his ideas on the design board, or a skilled craftsman who is translating the designer's creativity into reality, Telco is full of people who take pride in their work and strive to excel at it. I refer not only to specialists in advisory or staff positions, but include men in line positions right across the hierarchy. Through their deeds they have all demonstrated time and again that surpassing past achievements is not the privilege of a few.

We value this desire for excellence and cultivate it by training and retraining manpower at every level. In 1981-82, our total expenditure, or more correctly investment, on training amounted to as much as Rs. 235 lakhs. It is true that our Company is able to sustain a massive and continuing investment of this magnitude in training because we have attained a size where we are beginning to benefit from economies of scale. In my view the size now achieved by Telco is, in no

small measure, a fruit of the investment made in training, capital asset upgradation and the consequent product and productivity improvement.

CUSTOMER AFFECTION

A typical operator invests his money in a commercial vehicle with the objective of making a living out of his investment. We consider it our mission to help him by providing better products at the best price.

We continue to widen our range of products to meet the varied needs of our customers. Over the last few years we have introduced a series of new vehicles. We are now tooling up for yet another model which will enable us to fill an important slot in the Indian commercial vehicle market. This model has been designed to serve as a minibus as well as a truck for local distribution service and light long distance traffic, particularly in the hilly areas. In the field of earthmoving machinery also we have produced prototypes of totally indigenously designed hydraulic excavators which are presently under test and which will be in production by the end of this financial year.

Each new model is designed and fully tooled up by us for volume production. One of the major sources of strength that Telco has now demonstrated is the ability to rapidly develop and tool up for volume production a range of new products to meet the varying needs of our customers.

It is not only through the new models we bring out that our customers get the benefit of our design and development efforts. Our existing models are being continuously upgraded to attain higher standards of performance and to provide our customers a more fuel-efficient, rugged and abuse-proof product with low life cycle costs.

Moreover, engineering developments in Telco are not merely restricted to improvements in products. We have very active development programmes in our various divisions for updating our production technology. We design and manufacture special purpose machine tools and capital equipment, many of which have been made for the first time in India.

RESEARCH AND DEVELOPMENT

We are constantly enhancing the strength and the quality of the Design and Development Departments whose main task at the moment is to develop a range of durable and fuel-efficient vehicles—to suit as many transport needs as possible—and tailor them to suit the environment after taking into account all those factors that are peculiar to our country. Our engineers have now made our operations totally self-reliant. Our range of

new vehicles, engines and other important aggregates are being developed and produced without seeking any foreign collaboration. We give our R & D people all the support they need because their work is vital to the future of our Company.

PRICING

For all the value we build into our product the price we charge for it is moderated by extreme restraint. In the past few years it would have been easy to maximise short-term profits by increasing prices to the utmost our scarcity-ridden economy could bear or by postponing improvements to products and production processes. To have done so would have been to sacrifice the future of our organisation and all who depend on it—especially our customers. We have, therefore, assiduously avoided this 'easy' path and have been rewarded for our restraint. Our product remains the customer's first choice and we shall continue to exert all the energy and innovation we have at our disposal to keep it so.

CREDIT SQUEEZE

While the performance and the price of the product largely determine the return an operator will receive from his investment in a commercial vehicle, the availability of finance decides whether or not he can make the investment at all. The tight credit policies initiated by the Government last year deprived innumerable operators of funds necessary for buying vehicles. The worst hit have been the smaller and self-employed commercial vehicle operators because it is they who were totally dependent on commercial banks to lend them money for purchasing vehicles.

This induced scarcity of funds is bound to leave an indelible mark on the current year performance of the industry and of our Company. Even after easing of the credit curbs there's a minimum period before the favourable impact gets transmitted and industry picks up again. What we lose is an all-time national loss: it can never be made up. Here again, the worst sufferers will be the small ancillary suppliers who have neither the financial strength nor the diversified customer base with which to face the situation.

While formulating curbs on credit initially, a distinction should have been made between the more and the less productive uses of capital, instead of permitting across-the-board curbs to choke an industry which is the industry of many industries and which contributes most to the exchequer, generates nation-wide employment and is responsible for a product of strategic importance to the economy and defence of the country. It bears repetition that in the case of products such as commercial vehicles and excavators, the buyers fulfil a distinct function in the productive process and credit to them should not be treated on par with consumption loans which fuel inflation.

There are some signs of a more pragmatic view being taken with a selective release of funds for this sector. But much damage has already been done and unless credit is restored at the buyers' end quickly and effectively, this industry, as well as several other industries which have linkages with it, will present an unenviable picture of poor performance in this Year of Productivity.

EXPANSION

Whatever be the immediate problems facing the industry, we are confident of the future prospects for Telco. Our existing production capacity is substantial and it is strategically divided between two plants. In spite of the present difficulties, our expansion programme will proceed apace. As we ourselves undertake the planning and manufacture much of our capital equipment, we are able to regulate the pace of our expansion effectively and get the best return out of each rupee invested.

We are today entitled to produce 56,000 vehicles each year. We have also approached the Government with a proposal for further expansion, allowing us to produce 87,000 vehicles a year.

EXPORTS

The international market for our vehicles has been carefully nurtured by us and we are now the largest exporters of engineering goods in the country. Let it not be imagined, however, that export of commercial vehicles is easy or profitable. Each order has to be fought for and won. The recession facing the automobile industry the world over has made competition even more fierce. Our Government has played an active role in encouraging exports; it would help considerably if incentive schemes were made simpler to operate and they were assured a reasonable length of time. Exporters would be able to plan their strategies and penetrate markets far better if they did not have to fear the withdrawal of one incentive or another from year to year.

THANKS

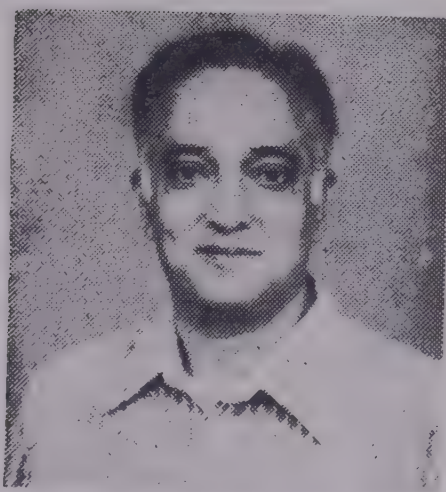
The question is often asked: What makes Telco tick? To me the answer has always been clear: It is the spirit of the men who constitute the Telco team—men to whom excellence is an everyday event. I am sure you will join me in expressing our appreciation to these men. The commitment and devotion they bring to bear in their task will continue to give Telco a distinctiveness of its own.

Note: This does not purport to be a record of the proceedings of the Annual General Meeting.



Karnataka State Financial Corporation

Shankaranarayana Building, 25, M.G. Road, Bangalore 560 001.



SRI. S. K. WARRIOR I.A.S.
Chairman

Extracts from the Chairman's Statement at the 23rd Annual General Meeting of the Corporation held on June 30th, 1982.

The Economic Outlook:

Economy of the State serves as a background to the development institutions for effectiveness of their functional role to be played in achieving their avowed objectives. Therefore, it would be befitting to review the economic scene before an over view of the performance of the Corporation.

Karnataka's economy is expected to register a growth rate of 5% during the year under report, with the containment of the price rise and the control over inflation. Food grain productions showed considerable improvement over that of 1980-81 and is likely to be of the order of 66.43 lakh tonnes.

Power generation also increased by 17% over the previous year, and there was renewed confidence in the industrial climate due to improved facilities. The production of basic industries like pig iron, paper, fertilizers, aluminium, vanaspathi

etc., in Karnataka showed significant growth. About 3682 new Small Scale units were registered during the year as against 2374 in the previous year. Provisional Registration Certificates issued to medium and large industries rose from 431 to 477 and during the year 523 Joint Stock Companies have been incorporated as against 375 during 1980-81. This would indicate that the healthy trend in the economy was also sustained in the State.

General Policy of the Corporation:

It has all along been the policy of the Corporation to translate the objective of the State Government in bringing about speedy industrial development, and the Corporation has consistently reviewed its policies, programmes and procedures and introduced new and innovative schemes. The Corporation therefore continued to encourage setting up of industries in the backward areas of the State through its various schemes. The Corporation mainly caters to the needs of small and medium industries but, during the year greater emphasis was laid to encourage the smallest of the small entrepreneurs through the special component plan with the main objective of helping the scheduled caste and scheduled tribe entrepreneurs. Special Schemes for assisting disabled entrepreneurs and rural artisans such as woollen weavers, handloom weavers, silk weavers etc., were introduced.

Re-organisation:

To sustain the pace at which the Corporation is growing certain improvements in the organisational structure was thought of so that the Corporation could be in a position to serve its clientele more efficiently. To meet this objective a study was commissioned to M/s Management Structure and Systems (p) Ltd., Bombay to advise a structure suitable to meet future needs of the Corporation. As a result of its recommendations operations have been decentralised resulting in the formation of three new Regional offices at Bangalore, Tumkur, and Gulbarga, while the existing Regional offices of Mysore and Hubli were upgraded.

The powers to sanction and disburse loans were enhanced at the Regional and Branch levels and constructive responsibility has been fixed for the recovery of loans.

To achieve better co-ordination, grouping of expertise within functional areas of Appraisal, Inspection and Disbursements and Recovery was effected making each of these areas self-contained departments.

A computer based data bank Management Information System has been built up. Special importance to entrepreneurial appraisal has necessitated the formation of separate committees at appropriate managements levels, consistent with the need to ensure the development role of the Corporation is fully ensured.

Performance of the Corporation:

Since 1980-81 the IDBI has introduced Business Plan and Resources Forecast (BPRF) for all the SFCs. Based on those targets, the Corporation prepared an action plan for the year and I am glad to inform you that the year 1981-82 has shown an unprecedented growth in terms of various parameters of performance like sanctions, disbursements and recovery.

Sanctions:

The total sanctions increased to Rs. 32.49 crores involving 1,292 cases, the highest ever when compared to Rs. 21.17 crores for 1022 cases during the last year. In terms of percentages, this is 53.5% more than last year and 30% more than the target fixed. It is heartening to note that as many as 76% of the applications were sanctioned within 3 months of their receipt.

Disbursements:

The disbursements increased from Rs. 14.40 crores to Rs. 21.64 crores during the year which is 8% more than what was targetted for 1981-82 and 50.2% more than last year. The Corporation has had to make concerted efforts to improve its collection. As a result of the sustained steps taken, the Corporation was able to collect Rs. 12.90 crores as against Rs. 9.68 crores of the previous year or 3% more than the targetted figure.

The percentage of overdues of instalments of principal and interest to loan outstanding as on 31.3.1982 stood at 23.13% as compared to 25.33% at the end of the previous year.

Small Scale Industries:

Of the total sanctions of Rs. 32.49 crores to 1,292 applicants, the small scale industries have taken a major share of Rs. 19.57 crores, which works out to 60% of the total sanctions during 1981-82. Similarly, the number of applicants assisted in the small industry sector works out to 71%.

Backward Areas:

In keeping with the principle of dispersal of industries to backward areas in the state, the Corporation has taken special interest in assisting entrepreneurs setting up industries in the areas which have been declared as industrially backward. During the year under review, 703 loans amounting to Rs. 15.02 crores have been sanctioned to backward areas as against 547 loans amounting to Rs. 9.43 crores during the year 1980-81.

Industry-wise assistance:

During the year under report, the engineering industry has availed of the major share of Rs. 8.25 crores or 25.4% of the total assistance. The traditional food based industries stand second with a share of 15.6%. The Hotel industry got a significant boost in terms of number and quantum of assistance, 35 projects were assisted amounting to Rs. 2.72 crores and nearly 10.6% of the assistance went to transport operators.

Special Schemes:

Under the existing special schemes for financial assistance such as Technician's scheme, Special Capital Scheme and Composite loan scheme, considerable progress was achieved during the year.

Resources and Profits:

In order to match the increasing requirement of funds with the loan repayments, we had to improve our resources during the year and the Corporation obtained funds from IDBI to an extent of Rs. 1513.00 lakhs, through Bonds amounting to Rs. 495.00 lakhs and by issue of share capital Rs. 135.00 lakhs.

During the year, the Corporation earned a record profit of Rs. 294.00 lakhs after meeting all expenses but before provision for taxes and payment of dividend as against Rs. 173.10 lakhs earned in the previous year. Out of this, an amount of Rs. 126.64 lakhs was transferred to Reserves.

Future Targets:

Encouraged by the growth of the Corporation during the past few years, higher targets for the year 1982-83 have been fixed with approval of IDBI. They are sanctions—Rs. 40 crores, disbursement—Rs. 30 crores and recovery—Rs. 18 crores.

It will be appreciated that the growth of the State Financial Corporations suffers from constraints which exist in the SFCs Act. Unless, therefore, some of the important sections of the

In the ensuing 'Year of Productivity', it is necessary that we should have a clear idea of our objectives. For this purpose, a development banking institution like ours should proceed from needs to objectives, from objectives to criteria, from criteria to planning and from planning to programmes.

There are large areas in our State, particularly, the coastal districts and the interior hinterland of North Karnataka which are areas of tremendous growth potential. Bidar is also one of the 82 districts notified recently by the Centre as a more backward districts for setting up large, medium and small scale units. Apart from the above, the task force appointed by the Central Govt. has made a detailed study of the four districts, namely, Tumkur, Dakshina Kannada, Gulbarga and Belgaum selected for the promotion of nucleus industries. The reports of which are almost ready. Therefore, the Corporation's main thrust should be on promoting infrastructural growth through the establishment of a network of small industries with the requisite linkages so as to form a sound base for accelerated industrial development in those areas.

To sum up, I would say that the year 1981-82 has been a year of record achievements for the Corporation. We are now in a position to play a much larger role in the cause of promoting and assisting the industries in the State.

(This does not purport to be the proceedings of the Annual General Meeting)



CORPORATE SECTOR

MPFC's all-round improvement

During 1981-82 Madhya Pradesh Financial Corporation (MPFC) continued to show all round improvement in regard to sanctions, disbursements, recovery and net profit. The loan operations experienced remarkable growth during the year. The corporation sanctioned 259 loan applications in 1981-82, as compared to 153 in 1980-81 which is an increase of 69 per cent. As against a target of Rs 12 crores, it sanctioned loans totalling Rs 16.29 crores in 1981-82 as compared to Rs 11.16 crores in 1980-81, an increase of 46 per cent. During 1981-82, Rs 14.48 crores forming about 89 per cent to the total were sanctioned to entrepreneurs for establishing 226 new industries in the State. The corporation also exceeded the target of rupees eight crores in regard to disbursements. A total amount of Rs 8.35 crores was sanctioned in 1981-82 as against Rs 6.61 crores in 1980-81, an increase of 26 per cent.

Out of the sanctioned amount of Rs 16.29 crores during 1981-82, Rs 13 crores, i.e., about 79 per cent, were sanctioned in backward districts. The loans disbursed in the districts during the year were Rs 6.28 crores, i.e., 75 per cent of the total disbursement of Rs 8.35 crores. Similarly, out of the 259 applications sanctioned during the year, 223 i.e., 86 per cent related to small scale industries. Under the Composite Loan Scheme for village artisans, cottage industries, etc in places where the population does not exceed 50,000, the corporation sanctioned Rs 13.86 lakhs in 68 cases during 1981-82.

During 1981-82, the corporation recovered Rs 5.02 crores as against Rs 4.04 crores in the previous year. The amount in default, excluding suit-filed cases, at the end of 1981-82 was 9.28 per cent of the total amount outstanding as against 12.04 per cent at the end of 1980-81. The corporation has also been able to cut down the average time taken in sanctioning loan applications from 158 days in 1980-81 to 98 days in 1981-82.

Indian Dyestuff: Sales, dividend up

Sales of Indian Dyestuff Industries

Ltd for the year ended March 1982 increased to Rs 64.51 crores from Rs 57.63 crores in the previous year. The net profit, after providing Rs 2.04 crores (Rs 1.99 crores) for depreciation, was Rs 1.71 crores (Rs 1.67 crores). The equity dividend recommended for the year under review is 14 per cent (13 per cent). An amount of Rs 16.10 lakhs (Rs 59 lakhs) is transferred to investment allowance reserve and Rs 50 lakhs (Rs 6.70 lakhs) to general reserve.

Saj Engg to make new range of dynamometer

Saj Engineering Private Limited, Pune, a leading manufacturer of dynamometers in the country, has entered into a financial and technical agreement with Froude Engineering Ltd, Worcester, UK, for the manufacture of a new product range of dynamometers. The new product range will include computer compatible hydraulic pressure control dynamometers up to 2200 hp and eddy current dynamometers up to 400 hp.

Maharashtra Tubes' plant commissioned

Maharashtra Tubes Limited has commissioned its steel tube plant at Murbad in Thane district of Maharashtra which will produce 10,000 tonnes in the first year of production. Mainly black pipes ERW in the range of 15 mm to 100 mm will be produced initially. By 1984, production will be raised to 90,000 tonnes.

The plant was inaugurated by Mr Sivaramakrishnayya, chairman and managing director, Bank of Baroda, on July 12. According to Mr B. L. Dalmia, chairman of the company, the plant has been set up in 18 months at a cost of Rs 170 lakhs. It would earn foreign exchange of Rs 100 crores annually through exports and would achieve an export target of Rs 60 crores in the first year of its operations.

PUBLIC SECTOR

Punjab & Sind Bank's rapid growth

Punjab & Sind Bank, which has entered the 75th year of its service on June 24, 1982 has achieved unprecedented growth

in the past two decades. The progress made in the last two decades is noteworthy as shown below:

Year	Deposits (Rs in crores)	Advances (Rs in crores)
1960	2.13	1.44
1970	14.96	9.88
1981	727.82	486.00

The advances to the priority sector alone were Rs 201 crores, being 42.6 per cent of the total advances. In the past decade, the number of branches rose six times from 90 to 559 in rural, semi-urban, urban and Metropolitan areas. In addition, the bank has 27 extension counters. The bank has spread its network all over the country with branches in all important cities. The most significant achievement of the bank has been extension of banking services to rural and hitherto unbanked areas. A branch was opened in London in 1977 to cater to the needs of the Indian community in England, and also to help increase foreign exchange business.

The growth of the bank has been stable and solid, as it has grown step by step, covering every field of banking. The bank has now four international banking divisions at New Delhi, Jullundur, Ludhiana and Calcutta. It also plans to open such international banking divisions at Bombay and Madras. Recently, a Merchant Banking Bureau was opened.

Forthcoming company meetings

JULY 31 TO AUGUST 7

Mafatlal Fine Spg. & Mfg. Co. Ltd., Patkar Hall, SNDT Women's University, 1, Nathibai Damodar Thackersey Road, Bombay 400 020. (August 5, 3.00 p.m.)

Hindustan Ferodo Ltd, Kamalnayan Bajaj Hall, Bajaj Bhawan, Ground Floor, Jamnalal Bajaj Marg, 226, Nariman Point, Bombay 400 021. (August 6, 3.00 p.m.)

Financial analysis of op TIES

Compiled by

Name of company	Cent	an	Rs 1.56 to Rs 140.92 per 10	Kanpur
Industry Group				Rs 342 and Rs 332 per 100
Item				demand for castor oil was
				while supplies were comfortable. Castor
				commercial oil eased by 50 paise
				Rs 74 and castor BSS oil by a rupee
Liabilities (at the end of the year)				
1. Net worth (i+ii)	9,30			
(i) Paid-up capital (a+b)	1,50			
(a) Equity	1,50			
(b) Preference				
(ii) Reserves	7,70			
2. Borrowings (i+ii)	1,00			
(i) Long-term	17			
(ii) Short-term	80			
3. Non-current liabilities and provisions				
4. Current liabilities and provisions	3,10			
Assets (at the end of the year)				
5. Gross fixed assets	11,70			
6. Less depreciation	4,90			
7. Net fixed assets (5-6)	6,70			
8. Current assets (i+ii+iii)	6,60			
(i) Inventories	3,40			
(ii) Receivables and loans and advances	1,90			
(iii) Others	1,30			
9. Other assets	10			
Total: Liabilities (1 to 4) or Net assets (7 to 9)	13,60			
Value of production and other income				
10. Sales/income net of excise duty, discounts, and selling commission	14,60			
11. Increase in stock of finished goods and work in progress	20			
12. Value of production (10+11)	14,90			
13. Other income	50			
Expenditure				
14. Materials, stores and other mfg. expenses	8,80			
15. Current repairs	20			
16. Salaries and wages	2,80			
17. Welfare expenses	10			
18. Managerial remuneration	40			
19. Other expenses	50			
20. Depreciation	50			
21. Other provisions	2,40			
22. Operating profit (12+13)-(14 to 21)	10			
23. Interest	60			
24. Tax provision	1,50			
25. Profit after tax (22-23-24)	10			
Appropriations				
26. Dividends (i+ii)	30			
(i) Equity	30			
(ii) Preference				
27. Profit retained (25-26)	1,20			
Total: Value of production & other income (12+13) or Expenses and appropriations (14 to 22)	15,40			
Operational indicators (per cent)				
(a) Net worth/total net assets				
(b) Inventories/net sales				
(c) Operating profit/net sales				
(d) Operating profit/total net assets				
(e) Profit after tax/net worth				
(f) Equity earning/equity capital				
(g) Equity dividend				
(h) Equity dividend coverage (No. of times)				
(i) Paid-up value per equity share (Rs.)				
(j) Market price of an equity share (Rs.)				
(k) Gross yield				
(l) Gross fixed assets formation				
(m) Debt/equity				



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NOTES: Category not applicable

Amount/Percent Rs 7 80

The profit figures shown in the above statement have been so as to show the true profit pertaining to the particular made in other items also. Totals may not add up due to

to Rs 79.50 per 10 kg.

Linseed bold was steady at Rs 460 per 100 kg although activity was slack. Its oil was marginally up by 36 paise to Rs 113.36 per 10 kg.

Among cakes, groundnut expeller and de-oil dropped by Rs 50 each to Rs 1,750 and Rs 1,350 per tonne on selling pressure while export demand was poor. Castor and cottonseed, however, held the ground at Rs 775 and Rs 1,450 per tonne.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:—

	22-7-1982	16-7-1982
G. nut Karad bold	610.00	615.00
G. nut oil	140.92	142.48
Cast. Md. Sm.	342.00	342.00
Cast. oil com.	74.00	74.50
Cast. oil BSS	79.50	80.50
Linseed bold	460.00	460.00
Linseed oil	113.36	113.00

Yarn subdued

Bombay, July 26

The local yarn market was subdued during the past week. The prices of 150D NRC and 120D NRC declined by one paise and 16 paise to Rs 55.06 and Rs 58.08 respectively. The prices of 150D CR, 120D CR, 100D SIV and 150D acetate remained unchanged at Rs 54.23, Rs 58.92, Rs 68.28 and Rs 49.01 respectively.

Jute goods slump

Calcutta, July 19

Jute goods displayed a quieter tone during the past week reflecting largely a slump in sentiment caused by the rise in stocks during June over the May levels despite a drop in production of mills. This was ascribed to continued

Cotton: Quietly steady

Bombay, July 26

Quietly steady conditions prevailed in the cotton market last week with limited business passing. Despite repeated reports about the settlement of the textile strike being round the corner, no solution was forthcoming. This factor continued to be a damper on the market. Even so, there were some isolated instances of a marked improvement in the quotations although it is not known whether any sizable transactions took place.

It is expected that the tripartite committee to go into the problems of the textile industry would soon be set up once a decision was taken about the representatives who should constitute the panel.

recession in demand. As a result there was selling pressure which pulled down prices sharply over the weekend.

The market just ignored the prospects of a reduction in output because of non-working of the mills for a five-hour period daily in the evening when power restriction is in force.

Mr A.K. Dutt, Secretary (Textiles), Union Commerce Ministry, has urged the industry to hold a dialogue with the State Trading Corporation to route the entire exports of jute carpet backing cloth through the corporation. He was addressing the annual general meeting of the Indian Jute Mills Association (IJMA) here. Emphasising the importance of the consortium approach to increase exports, Mr Dutt said that it had been decided to allow the private sector mills to export CBC at a discount through STC. He explained that the slump in overseas demand was the basic reason for the current plight of the industry. Inadequate overseas demand

Meanwhile, the Bombay Mill-owners' Association is reportedly probing the possibilities of getting extra credit from the Reserve Bank of India (RBI) to meet the contingency of payment to the workers as per the announcement already made by the

Union Labour Minister or as per slightly modified formula should become necessary.

The following has been the trend of prices of some of the leading varieties of cotton:

	(Rs per candy)	
	July 22	July 16
Digvijay	4,400—4,500	4,400—4,500
Kalyan	3,400—3,600	3,600—3,750
Saurashtra CO2	3,700—3,800	3,700—3,900
Maharashtra H4	4,800—4,850	4,800—4,850
Maharashtra Y1	4,400	..
Maharashtra Varalaxmi	4,800	4,800
Maharashtra 1007	4,750 ..	4,650—4,700
Maharashtra L147	4,700 ..	4,350
MCU 5 Guntur	4,600—4,910	5,300—5,550
Shankar 4	4,600—5,000	

for carpet backing cloth had compelled the mills to divert their installed capacity to production of other items which had depressed the internal market for jute goods as a whole.

He assured the industry representatives that the Centre was fully aware of the current plight of the mills. The government had taken a number of measures to revitalise the jute industry and improve its liquidity position. To help increase exports, the cash compensatory support was reintroduced to offset the loss on exports and the association's plea for inclusion of several other items in the scheme was under the consideration of the authorities. Besides, instructions had been issued to the cement industry for the use of new jute bags and to the fertiliser industry to discontinue with the use of synthetic bags for packing fertiliser. The DGS and D also had made emergency purchases during the year on a "cost plus" basis when the ruling market price was much lower. Those steps, he said, would help improve the liquidity position of the industry and overcome the crisis. He felt that the worst phase was over for the jute industry and it would now turn the corner.

The chairman of IJMA, Mr G. Sivaraman, pleaded for a steady purchase of B-twills by the DGS and D. He said that over the last 18 months the jute industry's economic stability had been eroded and practically every unit had reached a stage of near sickness. The producing mills now had no holding power and the prices were affected by crisis sales which had rendered all statistical positions of stocks meaningless. Mr R.V. Kanoria, deputy chairman of IJMA, hoped the authorities would take measures to help the industry overcome its present crisis. Mr Kanoria was elected chairman for the ensuing year.

The fibre market too was quiet partly reflecting the weakness of the goods market and absence of mill buying. As a result, the price of W-5

grade fibre was held at Rs 231 per quintal throughout the week.

Lacklustre conditions in metals

Calcutta, July 26

Lacklustre conditions marked trading on the Calcutta non-ferrous metal market during the past week as industrial demand for virgin metals was subdued with actual users in the organised sector well provided for from supplies from the canalising agency—the Minerals and Metals Trading Corporation.

Small-scale units were content with hand-to-mouth purchases, owing to the prevailing tight money market conditions and also the poor demand for the processed goods. Outside inquiries were confined to scrap items. The turnover was small, according to market circles.

Among the virgin metals, copper met with a setback despite encouraging overseas advices. Supplies of imported metal are held at normal levels for the scheduled sector units according to trade sources. The MMTC plans to import some tonnages of wirebar from the general currency area to keep adequate supplies in the pipeline.

Gold and silver rise

Bombay, July 26

The price of gold and silver in the Bombay bullion market increased during the past week. Standard mini gold opened at Rs 1,640 per 10 gms and closed higher at Rs 1,655 per 10 gms. Ready silver (.999 fineness) opened at Rs 2,565 per kg and closed higher at Rs 2,630 per kg.

Money easy

Bombay, July 26

Conditions in the Bombay short-term money market continued to be easy during the past week. Interest rates opened at 4.5 per cent and closed at five per cent.

HOW COMMODITIES MOVED

(Rs per quintal*)

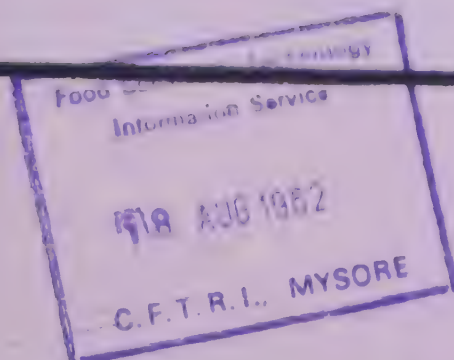
Commodity	Market	July 24, 1982	A week ago
Groundnut	(Rajkot)	529	467
Rapeseed	(Kanpur)	383	383
Sesamum	(Delhi)	700	703
Castorseed	(Kanpur)	285	285
Linseed	(Kanpur)	436	436
Sugar	(Bombay) (a)	559	541
Cotton	(Bombay) (b)	3,175	3,175
Jute	(Calcutta) (c)	240	245
Aluminium	(Bombay) (d)	1,605	1,605
Copper	(Bombay) (e)	3,010	2,990
Lead	(Calcutta) (f)	1,075	1,040
Zinc	(Calcutta) (g)	1,670	1,670
Gold	(Bombay) (h)	1,655	1,645
Silver	(Bombay) (i)	2,630	2,575
Caustic soda	(Bombay) (j)	600	603
Soda ash	(Bombay) (k)	240	238

* In terms of 10 gm for gold, kg for silver and candy for cotton

(a) C-30, (b) GJ-73, (c) W-5, (d) Scrap, (e) Wire bar, (f) Ingot, (g) Hard spelter, (h) Standard, (i) .996, (j) Flakes, and (k) Tata.

COMMERCE

Vol 145 No. 3712 Bombay, July 31, 1982



Banking

1982

— A SURVEY

Concern with three Ps—Performance, productivity and profitability

By S. G. SHAH

Our Banking Correspondent

THE professional managements of banks are eager to give a good account of their stewardship by showing a distinguished performance, but they have neither the resources nor a well-equipped administrative structure, neither the people nor an organisational network with which to achieve their goals of better banking for business, backward areas and poor people.

The directors of the banking system—RBI and government—are eager to convert the sprawling and loosely-knit banking system into a well-ordered, disciplined organisation with better productivity and moving towards a result-oriented banking. But they do not have the tools and techniques, information, controls or initiative to secure these objectives. The operational managers of banks are concerned with the falling profitability and declining rates of return on the capital resources.

... the banking scene today is characterised by the intricate problems of performance, productivity and profitability. The lack of resources, organisation and controls, the absence of well-trained people, efficient administration and effective initiatives make the problems virtually insoluble. Their failures to tackle the problems causes frustrations among bankers. Eventually, continuous frustrations over long periods breaks the will of the managements to solve the problems.

ces employed by the banks. But the economics of both, the rates and resources, is against them, with the result that their financial performance continues to deteriorate.

Thus, the banking scene today is characterised by the intricate problems of performance, productivity and profitability. The lack of resources, organisation and controls, the absence of well-trained people, efficient administration and effective

initiative make the problems virtually insoluble. The failures to tackle the problems causes frustrations among bankers. Eventually, continuous frustrations over long periods breaks the will of the managers to solve the problems. Like the customers, bankers too become helpless spectators of a deteriorating banking system. Gradually, banks are getting lost in the backwaters of the economic system. With their failures and frustrations the banks are becoming increasingly losing their capacity to respond to the increasingly complex needs of the modern community within which they operate.

Resources: Why deposits are stagnating?

Throughout 1982, banks have been complaining about stagnating deposit resources. They blame RBI interest rate policies which do not allow banks to pay as high rates as on debentures or company deposits. Banks quarrel among themselves—large versus small, commercial versus cooperative, rural branches versus regional rural banks—they compete intensely with each other. Even commercial bank branches themselves violate their own rules, regulations and disciplines in order to offer some clandestine incentive unofficially to attract more institutional deposits from large depositors. The government also comes in their way—they argue—by offering more attractive schemes of small savings, bearer bonds, capital investment schemes, and so on. Financial institutions like the Unit Trust of India or investment companies compete with them with more freedom and even more imaginative schemes.

There are three main deficiencies which are really and truly responsible for the decline of banks, but banks tend to ignore them and close their eyes—trying to believe that it is really the other external factors of competition.

The first of the three deficiencies

is that banks' funds for loans to business are declining. They are committing more and more funds for rural and local development, for priority sectors and for long-term development, for economically weaker and socially disadvantaged people. Moreover, as a matter of financial discipline and credit regulation, banks require business houses to increase their own stake and rely less and less on banks. Businessmen, finding banks unwilling to lend, are looking for greener pastures elsewhere; and wherever they go, they take their own deposits also. Thus, banks' inflow of funds is dwindling.

The second of their three deficiencies is that their expertise and capacity to give financial advice is declining. Even if banks have smaller funds, businessmen and entrepreneurs would still have to come to them if they could have guided them towards better financial and investment management. But banks have lost touch with the increasing complexities of financial management. All they know of financial management even today concerns management of stocks and bonds, debts and current ratios—they have not yet gone beyond into modern financial concepts. They call for cashflow statements but they do not know how to manage cashflows. They insist on better working capital management but cannot show to their customers how to deploy and manage funds. The customers are therefore, turning to chartered and cost accountants, financial and management consultants and business graduates for advice and guidance.

This development has affected both the smaller businesses as well as large corporate enterprises. The smaller people have found it more paying to seek outside advice from accountants and consultants, because it has saved them money and got them results. The large corporate

while to appoint and develop inside talents and to improve them through training and development. In all cases, businessmen, executives, entrepreneurs and top management have taken advantage of increasing number and variety of business courses to sharpen their own talents—courses to which bankers do not go.

Thus, businessmen who were totally dependent on bankers two decades ago have found new independence to run their business better without them. Banks have thus lost their lead both as a source of finance and advice.

The third of their deficiencies is that they do not even offer good service. Even in such elementary matters as counter services, clearing, collections, remittances and statements, they are far below the three simple needs and expectations of their customers—promptness, accuracy and regularity. What is worse still, they have offended their customers by their rudeness, indifference and recalcitrance.

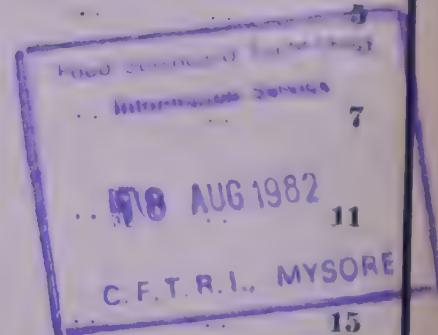
Banks do not understand all these nuances of changing times and talk endlessly about interest rates competition and alternatives.

People: Why they do not work enough

There are endless debates on whether banks are overstaffed or understaffed, whether overtime is justified or not, whether bank staff productivity has risen or fallen. There are no conclusive answers available to these questions because information and facts are not established, issues are not clearly formulated and posed and the main parties to the disputes—managements, trade unions and government—are lost deep in their own vested interests. Worse still, no one consults the first line superior and the actual worker—the two people

..... businessmen who were totally dependent on bankers two decades ago have found new independence to run their business better without them. Banks have thus lost their lead both as a source of finance and advice..... Even in such elementary matters as counter services, clearing, collections, remittances and statements, they are far below the three simple needs and expectations of their customers—promptness, accuracy and regularity.

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whose interactions result in the degree of productivity.

Bank managements have totally ignored or bypassed some of the basic issues. First they recruit some of the finest talents in the country and pay them well—but do not give them work and responsibilities suitable for their cadres and talents. They make all of them work much below their own calibre and competence, thus causing frustration and diverting their energies and attention towards more obstructive or destructive activities.

Second, responsibilities, duties and functions of people are not specified anywhere in the banking system. Duty lists are drawn up too generally and vaguely and no one is required to produce or judged by the results. Management By Objectives (MBO) is totally non-existent in banking industry.

Third, the banking industry consists of highly individualistic operations—and nowhere do we find people working as a team: neither in a branch, nor in a clearing or bills department, not even in current accounts and daybooks. Absence of team work and group goals is the greatest curse of banking industry. Each one not only believes but is also required to complete his day's work, but no one bothers to

In the process no one in the banking industry, from the chairman to the peon, has time and all of them attend to the work that they regard as urgent, none of them caring for the important and lasting results.

Fourth, systems and procedures in all organisations serve two main purposes—they serve as a protection against frauds and forgeries and become a mechanism for effective and efficient functioning of daily business operations. In the banking industry, however, they have become so outdated that they have lost their utilities in both areas. They have become so lax that they no longer offer any protection against outside frauds or internal embezzlements. All checking, supervision and double controls in banks have lost their meaning, because they are all superficial. Similarly, systems and procedures in banks have all become more obstructive. Not only that they do not produce any results, they actually prevent achievement of results. The clearing department is unable to realise local clearing cheques within 24 hours by quoting rules, and outstation collections are endlessly delayed just because rules and regulations for such collections have become inoperative through neglect and indifference, lack of control and of the gentle art of questioning. No

Fifth, and finally, people in banks do not work, because the banking industry has grown into a network of 44,000 branches and is rapidly going towards a goal of 55,000 to 60,000 branches by the end of the Sixth Plan, but it has not developed management techniques necessary for managing a large decentralised industry. People in banks are less productive, not because they are idle or incompetent, but because they are managed like a centralised one plant people, although they are located under 44,000 roofs, 3,000 km away deep into rural interiors, separated by inadequate and insufficient communications.

Profitability: Lost opportunities

Finances of the banks cannot be worse. They advertise that they manage Rs 45,000 crores of funds, yet they keep it a secret that they get just 0.1 per cent return on their working funds! No bank would lend Rs 25,000 to a business which is so badly managed—yet they have been successful in collecting thousands of crores of funds from the people!

Bankers complain that even their margins of eight to ten per cent between interest rates that they pay and earn are inadequate. Partly they are right because RBI has impounded half their resources, on which

they earn negligible amounts. But mostly they are wrong. Their profitability is poor because:

*Their cost structure is wastefully high, both with high staff expen-

.....systems and procedures in all organisations serve two main purposes—they serve as a protection against frauds and forgeries and become a mechanism for effective and efficient functioning of daily business operations. In the banking industry, however, they have become so outdated they have lost their utilities in both areas. They have become so lax that they no longer offer any protection against outside frauds or internal embezzlements. All checking, supervision and double control in banks have lost their meaning, because they are all superficial.

ses, their low productivity and complicated systems and procedures involving duplication, repetition and waste.

*Their cash management and investment management is very poor, even after constraints faced by all banks regarding vault space, soiled notes, large cash receipts in small denominations, inability to make remittances and all

other similar factors are taken into account. In fact some banks are doing better than others and this divergence itself shows the scope for better cash and investment management.

*Banks tend to miss many profitable lending opportunities, even in priority sectors. Social community forestry is a very profitable lending opportunities, even in priority sectors. Social community forestry is a very profitable lending opportunity.

Bankers had gone to New Delhi this month to discuss with the Union Finance Minister how they can give better customer service and how they can deal with the problems of staff indiscipline and overtime. During the whole of last year banks have been representing to the RBI that their rates structure is adverse. That is about all they have done to face these three problems. And to some extent, they have increased service charges steeply ostensibly to meet their costs, but in reality, while they would charge their customers more, they would use all the additional receipts in paying overtime to their staff for calculating the number of pages, number of lines and number of countries for levying the new service charges!

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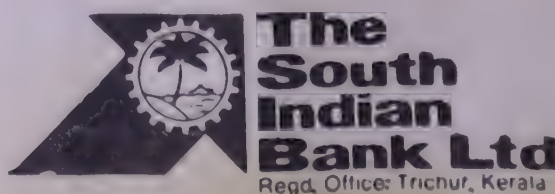
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Poor deposit growth in banks

By M. V. SUBBA RAO

*Chairman and Managing Director,
Indian Bank.*

DEPOSIT accretion with the banking system during the fiscal year 1981-82 was characterised by a marked deceleration compared to the previous year. The decline in deposit growth was pronounced during the later part of the year 1981-82 although the deceleration began in the second quarter of the fiscal year itself. This decline has been very steep and quite unprecedented in the recent past judging by the fact that there was a negative growth of deposits during the last quarter of 1981-82. Deposit growth during the first twelve weeks of the financial year 1982-83 (between the Fridays ended March 26, 1982 and June 18, 1982) has been of the order of Rs 976 crores (2.23 per cent) compared to a rise of Rs 2,556 crores (6.84 per cent) during the first quarter of 1981-82. The main reasons for this unprecedented decline in the deposit growth of commercial banks are discussed below.

The interest rate structure governing the deposits with banks and the corporate sector leaves no competitive edge for commercial banks in mobilising deposits. The maximum rate of interest on time deposits with commercial banks is only 10 per cent per annum for deposits with maturity period of 3 years or over; while similar deposits with the corporate sector fetch up to 15 per cent per annum—a margin of 5 per cent on deposits with the corporate sector is a definite attraction for small investors. This has resulted in the outflow of household savings from the banking system to the corporate sector.

Offers of convertible debentures

Under normal circumstances such funds would have ultimately found their way to the banking system. However, in the current context of reduced access to the corporate sector of bank borrowings, following the credit restraint measures, such funds have ultimately been used by the corporate sector itself. Further following govern-

has been a spate of offers of convertible debentures and equity share issues in the market. The returns on most of these issues are not only quite attractive but also offer a certain degree of capital appreciation. During the year 1982, fresh capital



Mr M. V. Subba Rao

funds raised by companies in various forms touched a record of Rs 533 crores, out of which Rs 452 crores came from the public and Rs 81 crores from the existing shareholders of the companies. To the extent that the companies have benefited from funds raised out of such issues, the banking system has been deprived of such funds. Another aspect of interest rate structure which has affected the deposit growth of the banking system is the shift in the priority of household savings to avenues other than the banks such as investments in the postal savings accounts etc.

Deposits: Reasons for poor growth

There are several other factors that have contributed to the poor growth of deposits. Credit restraint measures have slowed down the velocity of funds and thereby affected

tap unaccounted money might have also contracted the flow of funds to the banking system. Recessionary tendencies in industries, of late, have given rise to stockpiling of inventories and the consequential need for larger funds concurrently with reduced cash flows. This has also hampered, in a limited way, the deposit growth of commercial banks. A few changes directly governing the accounting procedure of banks such as the directive of the RBI asking banks to accept funds from institutions like LIC, UTI, etc, as borrowing instead of deposits might also have contributed, in a small measure, to slower growth of deposits.

In the preceding paragraphs, an attempt has been made to enumerate several factors that have contributed to the decline in the growth of deposits. It is difficult to assess the relative weightage to be assigned to each of these factors and also to what extent some of them are reversible on their own and to what extent others are irreversible. The deceleration in rate of growth of deposits can also be illustrated through the factors which generally influence the movement in money supply. One such factor is the balance of payments. During the period 1975-76 to

Credit restraint measures have slowed down the velocity of funds and thereby affected the growth of deposits. The issuance of the Special Bearer Bonds to tap unaccounted money might have also contracted the flow of funds to the banking system. Recessionary tendencies in industries, of late, have given rise to stockpiling of inventories and the consequential need for larger funds concurrently with reduced cash flows.

1978-79, there has been additions to our reserves tending to expand

amounted to a significant figure. The position is summarised in Table 1.

Table 1: Per cent of GDP at current market prices

	Current account deficit	Net capital inflow	Use of reserves
1975-76	1.41	2.34	-0.92
1976-77	-0.80	0.95	-1.75
1977-78	-0.77	1.18	-1.95
1978-79	-0.32	0.93	-1.24
1979-80	0.30	0.80	-0.17
1980-81	2.00	1.69	0.21
1981-82	2.70	1.54	0.52

The first year when a reversal of the trend took place was in 1980-81, when against a current account deficit amounting to 2 per cent of the GDP and capital inflow of 1.69 per cent, the use of foreign reserves amounted to 0.21 per cent of GDP. This use of resources increased considerably in 1981-82 when the current account deficit was of the order of 2.7 per cent of the GDP and net capital inflow 1.54 per cent and hence the use of reserves was of the order of 0.52 per cent of the GDP. This magnitude of reduction in foreign exchange reserves did not take place in the 1970s and that this should coincide with the period when drawings from the International Monetary Fund took place shows that the deflationary effect of use of reserves was sizable.

Bank credit to government

An equally important factor has been the deficit of the government and the amount of credit that the banking system has extended to government. The magnitude of bank credit to government is fully reflected in the size of reserve money, which ultimately forms the base for enhancement of money supply. Reserve money indicates the monetary liabilities of the Reserve Bank of India and the Government of India to others (including banks) in India. Between 1979-80 and 1980-81, the reserve money rose by Rs 3,132 crores. But between March 1981 and December 1981, excepting in July when it rose to Rs 20,271 crores, the outstanding of reserve money figure was on the decline and stood at Rs 19,507 crores as on December 1981.

In the first quarter of 1982, this trend more or less continued. The main reason for such a development has been the slower rate of growth of bank credit to government sector

1982 showed a rise of Rs 4,156 crores compared to Rs 5,268 crores during the previous year. Lack of growth of reserve money was partly due to the credit policy of the Reserve Bank of India in raising cash reserve ratio (CRR) from 6 per cent to 7.75 per cent and statutory liquidity ratio (SLR) from 34 per cent to 35 per cent. The impounding of reserves also contributed to lowering the rate of growth of reserve money.

With these two basic factors, it is possible to explain the bulk of the reduction in reserve money as well as the sluggishness in the growth of deposits with banks. Earlier, a reference has been made to the Special Bearer Bonds and the floatation of convertible debentures and shares in the share market which partly contributed to the slack in the deposit growth. These do not appear to be very significant. Whatever be the mode of receipt by the government either through taxes or through borrowings (Bearer bonds are in no way different from government securities) so long as the receipts do fall short of payments made by the government, it is the resultant size of the deficit financing which matters. When the payments of government go through a stream of transactions there are leakages in the stream when they come out of the banking system and lend to either payments in cash which are not banked or diversion of funds to the parallel markets. It is the leakages of this nature which cause the absence of high deposit growth and they are continuously operating.

The World Bank projections for current account deficit, net capital inflow and use of reserves are given in Table 2.

Reversal of trend

It is doubtful whether these figures are realistic and are likely to materialise. But assuming they do, the years 1982-83 and 1983-84 are expected to result in addition to reserves which are of modest in nature while in 1984-85, the use of reserves

Table 2: Per cent of GDP at current market prices

Projections	Current account deficit	Net capital inflow	Use of reserves
1982-83	2.50	2.33	-0.33
1983-84	2.30	2.58	-0.03
1984-85	2.00	2.07	0.21
1985-86	2.20	2.20	0.00

at 0.2 per cent will still be of the same order as in 1981. It is likely therefore that the worst period of sluggishness in the growth of deposits is already over and we may see easing of this situation in the current and in the next two years.

Assuming that the above figures do not materialise, there is a need for policies which could bring about a reversal in the trend. Rationalisation of administered rates of interest offered by various institutions is essential to enable commercial banks to garner more deposits to meet the increasing demand for funds from the banking system. Measures can be initiated to grant suitable concessions in respect of bank deposits for exemption from income tax, wealth tax rules and other related areas so as to promote greater flow of funds to the banking system. Measures for selective credit relaxations can be adopted so as to ensure adequate return flow of funds to the banking system and the consequent impetus it imparts to the deposit mobilisation efforts of banks.

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UNTIL recently, the savings or deposit mobilisation efforts of the banking industry in India were not being seriously challenged by other sectors, though the banks were (at times bitterly) competing among themselves. In fact, the Indian investing public were being branded as 'capital shy' and not long ago, the word 'share' carried a taboo attached to it in the Indian context. Branch managers in the banking institutions were perhaps finding it a difficult task to inculcate the banking habit among the small and medium investing class only fifteen years ago. A decade after the major nationalisation in 1969 saw the 'mass banking concept', revolutionising the commercial scene and the growth rate accomplished during the said period

1980 over a dozen giant public sector undertakings like HMT and IOC jumped into the fray with their attractive corporate deposit schemes. Corporate deposits have since become very popular and they may account for more than Rs 1,300 crores of public savings as on date. Some of the companies pay even monthly or quarterly interest to their depositors very much like a banking institution. Since the rate is lucrative, (12 to 15 per cent as against the maximum of 10 per cent in banks) the middle class investing public have diverted a significant part of their savings towards this avenue.

It is, however, argued that the banks afford the facility of loans against their deposit securities,

Budgetary encouragement to bank deposits

It is, however, heartening to note that the Union budget for 1982-83 has indirectly encouraged bank deposits at least on one account. The budget has increased the non-taxable limit of interest income from bank deposits to Rs 6,000 per annum; which means that sizable tax paying investors would prefer to invest in banks even at 10 per cent rate. Because, though companies pay an interest up to 15 per cent per annum on deposits and debentures, since the minimum tax on income for the first slab itself is 33 per cent, the investor would in reality be getting only 10 per cent after paying the income tax. Therefore, it would be at-

Why the declining trend in savings through banks?

By V. PRASANNA BHAT

Manager, Karnataka Bank Ltd, Pune

ould be termed as significant and by o means an ordinary feat. But the momentum so gathered is not being apparently sustained, especially since the end of 1980 and more appreciably from the beginning of 1982. It is therefore interesting to analyse some of the probable causes for the downward trend in the growth rate of savings through banks, though it may be said that the banking industry on its part has not complacently reduced any of its mobilisation efforts.

Corporate deposit schemes

It is well known that as per section 58(A) of the Indian Companies Act and also as per the Acceptance Deposit Rules 1975, the companies are facilitated to accept deposits up to 35 per cent of their paid up capital plus free reserves, less intangible assets (otherwise known as net funds owned). This provision is exclusive of inter-company funds transactions and borrowings. Though company deposits were in vogue earlier, they became a viable source of hard competition for bankers during 1979 and were conspicuously during the be-

whereas companies do not. Even so, during the worst liquidity crises some time back, some of the nationalised banks and also a few banks in the private sector either controlled their loans on deposits or reduced the percentage (say from the RBI permitted rate of 75 per cent to 50 per cent or less) of the loan released against the security of deposits. Though such decisions were taken by the concerned banks to safeguard their liquidity considerations (because for each 100 rupees received as deposit, the bank would have already invested more than Rs 40 in order to satisfy CRR and SLR considerations leaving around Rs 56 only for lendable activities; out of which again creating 75 per cent of the original sum for the purpose of loan against the deposit, becomes an unviable proposition) it was the proverbial last straw that broke the camel's back. Few banks were also desperate to the extent of permitting premature closure of deposits rather than permitting loans against the security of deposits (Of course, few cases here and there and in many

attractive to invest in banks at a lower rate due to the tax concession limit. This is the only ray of hope for bankers against stiff competition from attractive company deposits.

Earlier, competition implied only post office, LIC, UTI, government bonds and trustee securities. Companies were offering deposits from 1975 for the public. But the main contender in the present context is neither of the two. The corporate managements having been driven to conceptualising innovative portfolios for mobilising savings from small and middle class investing public and with increasing difficulty in procuring bank finance for their developmental activities due to stringent credit measures, (Tandon Committee norms, Chore Committee stipulations, 40 per cent of credit to priority sector etc) corporate bodies are invoking new concepts. Many companies have systematically developed an image in the eyes of investing public by modern and innovative advertising and publicity measures. They have also used such situations to raise funds at a cheaper rate than banks can afford. (Say against

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crores to Rs.187 crores. 31% increase in loans under the DIR scheme. 3 new Regional Rural Banks sponsored. Disbursal of credit in lead districts Rs.85 crores as against a commitment of Rs.45 crores. 26.4% growth in foreign business turnover to reach Rs.1,220 crores. Non-resident deposits up to Rs.109 crores.

31st December 1980

Rs 5,00,00,000
10,00,00,000
2099,05,76,838
51,01,23,237
41,06,87,844
124,84,42,982
39,17,22,472
230,31,57,606

4,25,64,948
2,00,00,000
2,00,00,000
25,64,948

2600,72,75,927

STATEMENT OF POSITION Capital and Liabilities

Capital (paid up)
Reserve funds & other reserves
Deposit & other accts.
Borrowing from Banks & Agents etc.
Bills Payable
Bills for collection per contra
Other liabilities
Acceptances, Endorsements etc. per contra
Profit for the year
Less transferred to Reserve Fund
Transferred to Contingency
Balance transferred to Central Government

4,90,76,213
2,94,00,000

1,70,00,000

31st December 1981

Rs 5,00,00,000
12,50,00,000
2545,80,65,917
70,88,73,406
29,49,50,026
133,72,16,368
47,99,21,172
229,15,96,776

26,76,213

3074,82,99,878

31st December 1980

Rs 356,24,49,074
2,00,00,000
601,16,53,662
1172,29,08,615
124,84,42,982
230,31,57,606
2,91,69,597
9,71,90,496
101,20,72,949
2,30,946

2600,72,75,927

Property and Assets

Cash in hand & with banks
Money at call and short Notice
Investment in Govt and other Securities
Advances
Bills for collection per contra
Acceptances, Endorsements etc. per contra
Premises
Furniture & Fixtures
Other Assets
Non-banking Assets

31st December 1981

Rs 435,06,88,062
2,05,00,000
694,47,33,217
1448,60,87,555
133,72,16,368
229,15,96,776
3,98,09,743
11,97,05,936
115,77,55,286
2,06,935

3074.82.99.878



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they procure funds at 15 per cent directly from investing public through debentures).

Convertible debentures

The context is something similar to producer selling the goods directly to consumer with least "middlemen traders". More and more companies seem to have recognised the scope in this direction and are thus coming out with such modern concepts like convertible debentures. In fact in 1981 even company deposits have shown a slightly declining growth rate in preference to the novel concept of convertible debentures. This concept facilitates availing funds directly from the investing public eliminating the middleman banker. Of course, a lot needs to be performed in image building as a prerequisite, before venturing into this realm of funds mobilisation. The repayment of the loan is again not physical but a 'plough back' into the system of corporate finance in the form converted equity funds or shares.

Perhaps the Union budget last year gave a pep to the above idea of mobilisation of funds. It is relevant to note that the budget spelt it as a policy that the corporate sector must try its best to secure funds from their own resources rather than depending heavily on the banking system. The thought process behind the formulation of such a policy was that it would facilitate additional resources mobilisation or funds from a 'capital shy' public towards developmental capital investments, especially since the companies offer a higher rate of return either in deposits or in debentures. But the experience of bankers has proved this expectation to be wrong; because the downward trend in the growth rate of savings through banks only suggests that a large chunk of funds otherwise meant as bank savings have been diverted as corporate funds.

Why the downtrend in deposits?

The present marked success of companies and corporate bodies in raising funds by means of public issue of debentures and mobilisation of savings for their fixed deposit schemes could be termed as spectacular. It is estimated that over Rs 300 crores have been mobilised during the first half of 1982 by corporate bodies by floating debentures (both convertible and non-convertible), equity shares and right issues.

responding figures for the previous year. Evidently this activity has eroded into the banking industry's deposit growth rate. In fact at the end of February 1982 most of the commercial banks, barring one or two exceptions, were showing deposit figures less than the ones shown by them as on 31st December 1981. It may not be surprising if some of the banks were to maintain the status-quo (still) with regard to deposit, with reference to year end figure pertaining to 1981, even as on date. Evidently the rate of growth of savings through banks is reflecting a perceptible declining trend.

As aforesaid, the downward trend started manifesting itself at the fag end of 1980. The middle class investing public seems to have caught up with the idea of investing in corporate sector in preference to banks. The prominent among the avenues are convertible debentures, shares, non-convertible debentures and company deposits. As against a meagre floatation of roughly Rs 5.5 crores in 1977, the debentures floated in 1981 rose to an astounding figure of approximately Rs 174 crores; registering a fantastic growth rate of 3,070 per cent in a short span of four years. This growth rate in corporate debentures accounts for their increasing popularity with the investing public. About two years ago it was estimated that India had approximately 30 lakh people, who were having company shares. The figure is more than double at present. Therefore, it is clear that company deposits, shares and debentures have positively eroded the growth rate of savings through banks.

General economic condition and the operation of Engel's theory of expenditure may be yet another factor effecting a downward push in the growth rate of savings through banks. When people need a larger chunk of their incomes to satisfy their basic needs, the portion allocated as savings through banking system consequently gets diminished.

Black money circulation is yet another factor dampening the growth. Assets like 'a housing flat' has more capital appreciation due to the black money component involved in the transaction and this in turn motivates the investing public to save in appreciating and tangible assets rather than redundant interest earning deposits which turn out money at a discounted value in

with the investing public, naturally brings about a declining trend in savings through banks.

Decline in rural savings

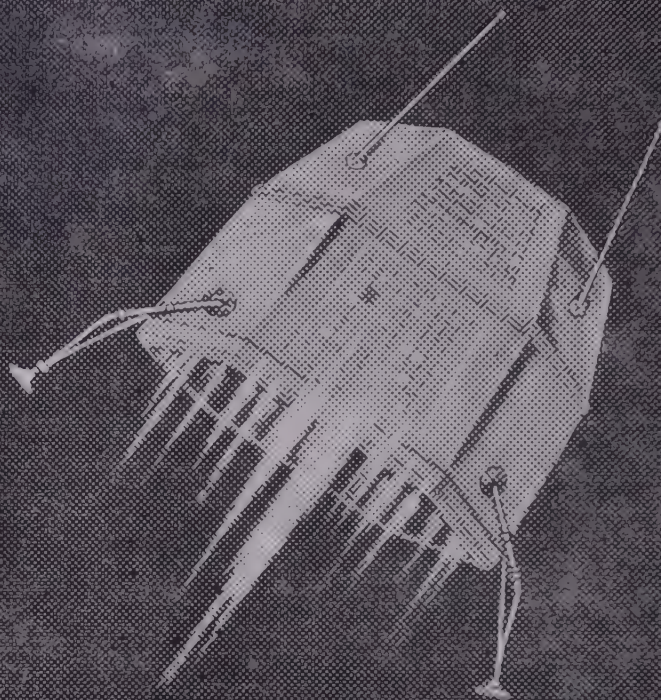
According to some economists, the decline in the saving capacity of rural public is a contributory factor to the present malice. In fact, many banks reckon that real deposit growths occur in their rural and semi-urban branches rather than urban and metropolitan centres. Window-dressing is said to occur quite perceptibly at the latter centres. Due to non-remunerative prices to agricultural produce and also due to general recession, the rural savings have not shown the required growth leading to the present trend in banks.

Further analysis may reveal newer concepts contributing to the present state of affairs with regard to mobilisation of funds in banks.

The government as a monetary authority must now carefully analyse as to whether it is advisable to continue the present situation leading to further erosion of growth rate in the banking sector. The purpose of credit restriction appears to have been defeated, as companies are now successfully embarking on public funds mobilisation which was hitherto a banker's forte. If the idea were to mobilise additional funds from the public, it has evidently failed because banks have apparently lost in the bargain. Talking of credit restrictions as a measure of containing inflation, and then becoming a silent spectator to corporate mobilisation of public funds in the nature of credit replacement and at the same time sympathising with banking institutions for their declining growth rate may sound similar to "pinching the baby and rocking the cradle".

It is apparent that the authorities are not willing to relent at least for the time being. Banking institutions having learnt the lesson the hardway must think of alternative plans and course of action. Merchant banking offers a good scope at this juncture. Efforts in this direction should help the banks to catch up with the corporate trend and hence maintain the balance. Another area where banks can play a vital role is mobilising non-resident funds and foreign investments.

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Mr Y. V. Sivaramakrishnayya

Liberalised investment schemes for non-residents

By Y. V. SIVARAMAKRISHNAYYA

Chairman & Managing Director, Bank of Baroda

A TTRACTING investments from non-residents of Indian nationality or origin is assuming greater significance in the context of the ever increasing need for foreign exchange resources to finance our developmental needs.

Foreign exchange can come to us in the form of grants/aid/loan assistance by developed countries, remittances from abroad, exports of goods and services in an increasing measure etc. On account of recessionary conditions prevailing in most of the developed countries, the first source is dwindling and even if available, is proving to be costly. We have, therefore, to turn more to increasing the inward remittances of our citizens settled abroad.

According to an estimate which appeared in the press, the non-resident Indians have funds of the order of Rs 20,000 crores. A recent study made by the Federation of Indian Chambers of Commerce and Industry shows that the remittances from Indians settled abroad have been increasing year by year. In the year 1970-71, the net remittances were of the order of Rs 132.2 crores i.e. 8.6 per cent of our total exports, whereas the remittances received during the year 1980-81 were estimated to be of the order of Rs 4,500 crores i.e. over 50 per cent of our exports. The Finance Minister has very rightly observed in his budget speech for the year 1982-83 that the remittances from the Indians abroad are an important source of foreign exchange for the country. A good part of

vested in India's development and the Indians abroad are willing to contribute for our country's progress.

Earnest desire

Our experience in Bank of Baroda as bankers to the companies for many public issues of shares and debentures shows that an increasing number of non-resident Indians are subscribing to these issues, because they feel safe investment can be made in India. They have an earnest desire to contribute to the industrial and economic development of the motherland, provided reasonable return is assured on their investments. Besides, many of them have gone abroad for a temporary period with the intention to come back to India. Therefore, they would naturally like to make investments in this country.

Till recently, the non-resident investors of Indian nationality/origin were allowed to make investment in shares of Indian companies as under subject to prior approval of the Reserve Bank of India (RBI):

- i) Portfolio investment in shares without repatriation benefits;
- ii) Investment with repatriation benefits, upto 20 per cent of equity issues of new companies engaged in selected industries;
- iii) Equity investment with repatriation benefits upto 74 per cent in priority industries.

With a view to providing further incentives to non-resident investors recently the Government of India has liberalised the above facilities. The Reserve Bank of India has simplified the procedural formalities for the same. The salient features of the scheme are as under:

A) Investment without repatriation benefits

- i) Investment in shares of existing companies through stock exchange

- ii) Direct investment in new issues of public and private companies engaged in business activity (except real estate business) permitted upto 100 per cent without the necessity of having Indian participation.

B) Investment on repatriation basis:

- i) Portfolio investment in shares quoted on stock exchanges was permitted upto Rs 1 lakh face value or 1 per cent of the paid-up equity capital of the company. The limit of Rs 1 lakh face value has subsequently been removed. Further, in cases where shares are purchased in joint names, the first holder will be treated as investor for the purpose of operating the limit of one per cent of the paid up capital of the company. The second or third holder of the shares will be eligible to invest in shares in the same company separately upto one per cent of its paid up capital, provided the shares are purchased in his sole name or as the first holder in the event of a joint-holding.

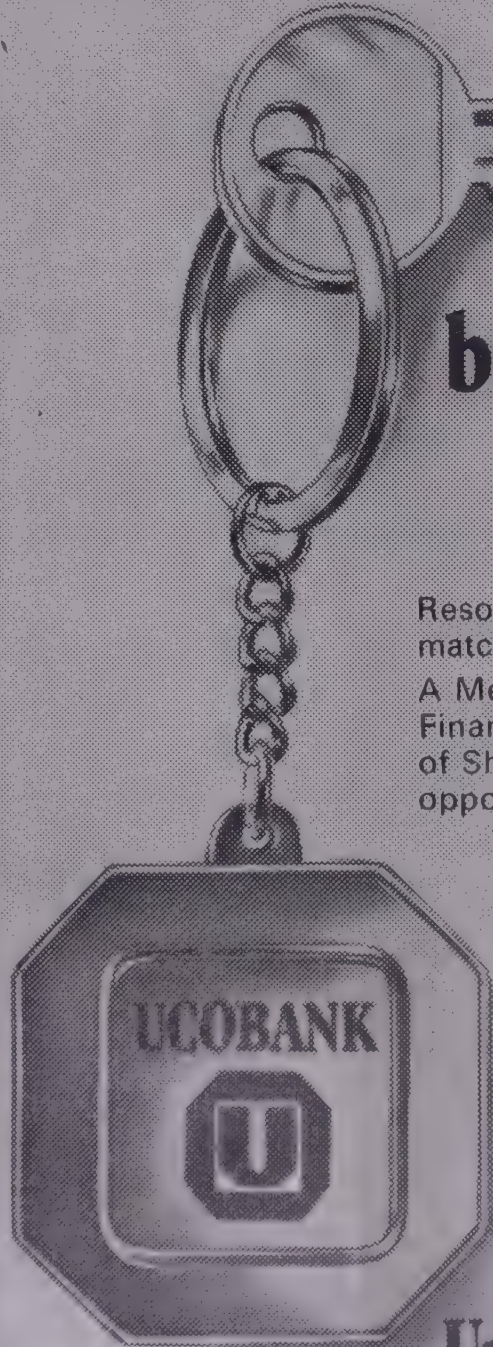
This joint-holding facility is expected to provide non-residents higher scope for investment with its in-built elasticity for permutations and combinations within a family or a group of individuals.

- ii) Investment in new issues of new as well as existing Indian companies (other than FERA companies) through prospectus—upto 40 per cent of the new capital issue.

- iii) Investment in capital issues of private and public companies other than through prospectus upto 40 per cent of the new capital, subject to maximum of Rs 40 lakhs.

- iv) Investment in priority industries upto 74 per cent of the equity, which now includes hotel industry also.

- v) Investment in 12 per cent 6-year National Savings Certificates—no limit—free of wealth tax.



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Investment by overseas companies and other corporate bodies

Overseas companies, partnership firms, trusts, societies and other corporate bodies owned predominantly by non-resident individuals of Indian nationality/origin (atleast 60 per cent ownership should be with non-residents of Indian nationality or origin) can make direct and portfolio investments detailed in (A) and (B) above.

The Reserve Bank of India has also permitted banks to freely open Non-Resident (External) Accounts and FCNR accounts in the names of such corporate bodies. They can also invest in units of the Unit Trust of India, securities (other than bearer securities) of the Central or any state Government and National Plan/Savings Certificates, including 12 per cent 6— year National Savings Certificates.

Procedure simplified

Non-residents—individuals or corporate bodies as defined—are required to designate only one bank in India which is authorised to deal in foreign exchange to facilitate co-ordination and smoothness in investment operations. The designated bank will obtain permission from the Reserve Bank of India on behalf of the non-resident investors.

For purchase of shares and securities, it will be one time permission and for selling, a consolidated permission to sell any shares held at that time is required which will be valid for 12 months and which could be extended by the Reserve Bank of India for a further period of 12 months.

Non-resident investors can appoint individual residents in India, banks or recognised stock exchange members/brokers as their agents with appropriate power of attorney to arrange purchase/sale of shares and securities in India.

If the investment is made on non-repatriation basis, income derived from such investments will be credited to the investor's non-resident ordinary account and if the investment is on repatriation basis, income derived from such investment can be credited to the investor's Non-resident (External) Account, or repatriated from India, if desired.

Payment of subscription (application money) from the non-resident's Non-Resident (External) Account/FCNR Account or ordinary

approval of Reserve Bank of India. If the subscription or any portion thereof is refunded by the company, authorised dealers can re-credit the same to the applicant's account from which it was withdrawn.

If the subscriptions to the new issues were remitted from abroad, authorised dealer can remit funds of excess subscription to the concerned applicants/beneficiaries.

The Reserve Bank of India has also made it clear that while granting permission to purchase shares through a stock exchange, it will also allow designated banks to export the relative share certificate wherever required, to their non-resident clients. This will avoid the need for obtaining the Reserve Bank of India's specific permission separately for exporting shares.

Another important decision taken by the Reserve Bank of India is that the investments made by non-resident Indians or overseas bodies predominantly owned by such persons will not be taken into account for treating an Indian company as a FERA company. It has made clear if a non-FERA company becomes a FERA company (in which non-resident holding exceeds 40 per cent), the RBI will, on application made to it, grant general permission to such a company under Section 26(7), 28, 29 and 31 of FERA, so that it need not seek the specific permission of the RBI in each case.

Points for consideration

The discussions with concerned interests revealed that the following matters deserve consideration:

1. **RBI permission:** As per the scheme, a non-resident investor has to obtain RBI permission through his designated bank for purchase and sale. Though the permission for purchase of shares is to be obtained only once, the same for disposal of shares is required to be obtained every year. Obtaining permission from the RBI may entail delay which may result in losing a good opportunity for the non-resident investors either to purchase or to sell at the best rate.

It is, therefore, suggested that the banks authorised to deal in foreign exchange may be empowered to operate this investment scheme on their own by deleting the provisions requiring prior permission of RBI. However, they may send

through them by the non-resident investors.

This suggestion is based on the premise that the banks have been granted permission to open Non-resident (External) accounts without permission of the RBI and since the investment by non-resident investors will be made from such accounts maintained with the banks, there is no necessity of prior permission of RBI for investment in shares also.

2. **Taxation:** Coming to the aspects deterring the non-resident Indian investors, the one which worries them most is rules and regulations relating to taxation and their operation in this country.

Because of high rate of taxes and low yield on growth shares, the net return will be low and in some cases of large investment, it may turn out to be negative, i.e. on investment in shares of Rs 16.65 lakhs with 2 per cent yield rate, net return will be only Rs 480 after paying income tax of Rs 4,908 and wealth tax of Rs 27,917. Whereas this investment at the rate of 2½ per cent will fetch him only Rs 5,188 net.

Another fact is that with the increase in investment, the return turns out to be negative. An investment of Rs 31.65 lakhs at 2 per cent yield rate will cost an investor Rs 54,594 by way of negative return after paying income-tax of Rs 19,085 and wealth tax of Rs 98,809 against his income of only Rs 63,300. This means that just to meet his tax liabilities on his investment in India, he will have to remit further funds of Rs 54,594 every year.

It is, therefore, suggested that the government may examine whether investment made by the non-residents out of the funds held in their FCNR and non-resident (external) accounts could be made free of certain taxes as in the case of bank deposits in the form of FCNR and non-resident (external) accounts and in line with the investment in 12 per cent 6-year National Savings Certificates which have been made free of all taxes.

This measure will also help as a booster to the capital market, besides attracting large funds from the non-resident investors.

Deducting tax at source from the dividends/interests could perhaps be dispensed with to eliminate the difficult task of obtaining refunds

While a non-resident investor

dends, etc at a particular point of time, he will have to estimate his income well in time and pay advance tax on the estimated income on the 15th September, 15th December and 15th March before actually earning income. For this, he will have to remit funds from abroad.

Procedures for obtaining refunds and income-tax clearance certificates for repatriation of funds are time-consuming. If the provisions of taxation are relaxed as suggested above, these procedures could be avoided and it will act as an added incentive to the non-resident investors.

3. *Repatriation of funds:* The designated banks may be given the authority to repatriate the original amount invested in shares without waiting for the income-tax clearance certificates. This means that only the amount of capital gain, if any, should be kept with them till the income-tax clearance certificate is obtained. This measure will help in restoring confidence in the minds of non-resident investors and will have a tremendous psychological impact.

4. *Partnership firms as investors:* As per the Indian Companies' Act, a partnership firm is not allowed to invest in the shares of Indian com-

panies. But the relevant circular of the RBI states that partnership firms, like other corporate bodies, if owned predominantly by non-resident Indians, are allowed to invest in the shares of Indian companies. This provision needs clarification by the RBI.

5. *Investment in private and public limited companies upto 40 per cent without prospectus:* In case, a public company desires to invite non-resident participation in the promoters' equity, the ceiling of Rs 40 lakhs will be a hindrance for a large capital as participation in the promoters' equity will be without a prospectus. In such cases, this limit of Rs 40 lakhs may be removed.

6. *Investment in FERA companies:* It needs to be clarified that the non-resident Indians can also make portfolio investment in shares of Indian FERA companies.

Need for co-ordination

Apart from this, the point on which I would like to place considerable emphasis, is the need for co-ordination amongst the various agencies of government dealing with different aspects of investment by non-resident Indians. The non-resident Indians are thousands of miles away

and have no access to individual authorities here. It is, therefore, necessary that they have only to approach one focal point for availing of these liberalised facilities, such as portfolio investment or investment in industrial projects. Such an arrangement will help a great deal in attracting non-resident Indian investment in a substantial measure.

Role of banks and other organisations

In order to help non-resident Indians to take advantage of the liberalised investment opportunities and particularly because of complexities involved, Bank of Baroda has established a 'Non-resident Portfolio Management Consultancy Cell' in their Merchant Banking Division at Bombay. The consultancy cell provides a package programme. The banks not only should carry out investment transactions as designated banks but also provide Portfolio Management Consultancy.

The leading commercial banks may also open non-resident service cell at their overseas branches to provide the intending non-resident investors first-hand information and guidance. The organisations like All India Manufacturers' organisation, The Federation of Indian Chambers and Commerce of Industry (FICCI) and Overseas Indian Jaambo Association can contribute a great deal in identifying investment opportunities in industrial projects in which non-resident investors can invest. They can undertake preparation of project profiles for the non-resident investors. The next step that they can take is to identify a reliable Indian partner in this country who can participate with a non-resident Indian to set up an industrial project in India. Such organisations can be of considerable assistance in getting the various approvals from different agencies for setting up industrial projects in India.

Non-residents have many avenues elsewhere in the world for profitable investments. They are in no way obliged to invest in our scheme unless it is equally profitable. It is, therefore, necessary to make it more attractive by providing suitable tax concessions so that large sums could be attracted.

However, it is to be appreciated that there are various aspects to be taken into account by the government in deciding the extent to which

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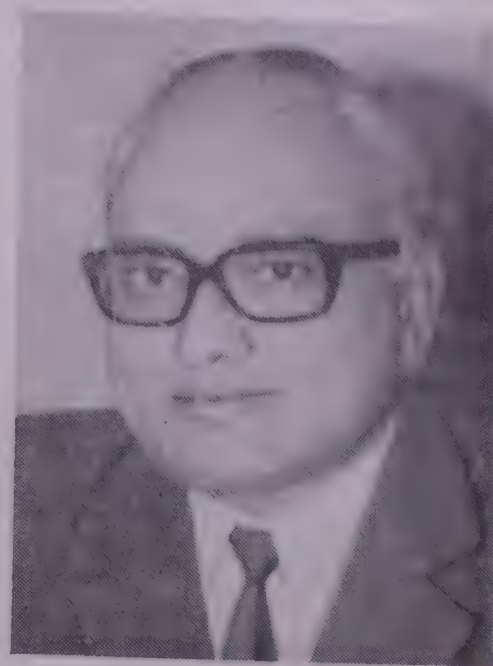
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Managing Director.

Financing agriculture— Problems and prospects

By K. G. K. MURTHY

Chairman and Managing Director, Andhra Bank



Mr K. G. K. Murthy

THE entry of commercial banks into the financing of agriculture is of recent origin especially since the introduction of social control in 1968 and the subsequent nationalisation of the major commercial banks in 1969. Although commercial banks have been financing agriculture even prior to nationalisation, their efforts were not directed in a co-ordinated manner. Taking into consideration the enormous potential the agricultural sector offers, it is necessary to look back at the evolution of commercial banks' lendings to agriculture, especially since nationalisation and the emphasis for increasing the flow of credit to this sector of the economy and the resultant issues that emanate from this.

There has been significant progress made by the commercial banks in branch expansion during the last 13 years and, simultaneously, the deployment of credit to the agricultural sector has also increased significantly. The outstanding advances of commercial banks to agriculture stood at Rs 4,130 crores as at the end of September 1981 as against Rs 188 crores in June 1969. Apart from this, the number of accounts also increased significantly over the years and commercial banks had nearly Rs 90 lakh borrowal accounts as at the end of June 1980. Financing agriculture by commercial banks has thus gained a new dimension in the context of their commitment to rural development. Commercial banks have also set up regional rural banks (RRB) in accordance with the RRB Act of 1975. As at the end of June 1981 there were 3,598 regional rural bank branches operating in the country, of which 3,281 were in rural areas.

Regional Rural Banks

The Committee on Regional Rural Banks after a detailed examination of the working of the RRBs, opined that rural bank branches have succeeded in imparting rural orientation and local touch to their operations. It also indicated that the quality of lending of RRBs compared to that of rural branches of commercial banks showed that the credit administration of the RRBs was, in many re-

strengthening the system of rural credit and this has been highlighted by other committees also, especially the Committee on Multi-agency Approach in Agricultural Lending.

Looking at the problem of effective credit support for overall agricultural development from the national angle, the report of the Committee on Integration of Cooperative Credit Institutions headed by Dr R. K. Hazari, the former Deputy Governor of Reserve Bank of India, in September 1976 has expressed the confidence that the cooperative credit system can fully play its expected role in the agricultural development, provided the existing imbalances in its growth are corrected and it is enabled to provide credit facilities in an integrated manner to the agricultural sector. The committee endorsed the view that not only cooperatives are to be strengthened but also commercial banks, including RRBs, so that they can play a complementary role and not a competitive role in meeting rural credit requirements. Accordingly, the multi-agency approach idea was mooted for providing credit in the rural areas.

Multi-agency approach

The multi-agency approach is necessary in the context of the magnitude of the agricultural credit requirements as a major portion of which is still catered by the informal sector. As it stands today, despite the expansion of institutional credit structure for lending to the agricultural sector, it is rather difficult for us to throw the moneylenders out of the rural credit scene because of their intimate knowledge of the rural areas, the personalised service in the areas of credit administration and the simplified procedures with which rural borrowers are well acquainted as also the long established rapport which has developed over a period of time.

Let us accept the fact that rural credit requirements have to be effectively met through the multi-agency system since the dimension of rural credit is so vast that it just cannot be met by institutional sources alone whether it is consumption credit or investment credit. In this context,

agriculture poses certain problems in efficient disbursal of credit. The problems are:

- (a) the existence of number of agencies retailing credit in common areas of operation, disbursal of credit in an un-guaranteed manner resulting in multiple financing, over-financing;
- (b) the inability of the credit agencies to formulate and develop a meaningful agricultural programme on an area approach basis;
- (c) overlapping and duplication of banking facilities and consequent wasteful expenditure, besides unhealthy competition;
- (d) recovery of loans in a situation where more than one credit agency have claims on the same income or the security; and
- (e) those arising out of different systems, procedures and policies, security norms, service and supervision charges bearing interest rates, etc.

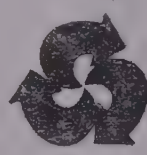
Cooperative credit

Although the coverage of the cooperative credit system is substantial in terms of area, population coverage and credit disbursed, the progress of the cooperative movement in India is uneven. One of the shortcomings of the cooperative credit system, which vary from state to state, appears to be the problem of overdues. A variety of factors influence the level of overdues of cooperative credit institutions. The reasons which are basically attributed for deterioration in the recovery of dues are crop failures due to natural calamities, inadequate supervision, unsatisfactory management, unsound lending policies, default by relatively affluent sections of the farming community and

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justified confidence in the misguided borrowers that the loans would be written off at a later date.

There has been an uneven spread of bank branches of commercial banks between the states and the population groups. Wherever commercial banks have a good network of branches, one could even notice the competition among them for catering to rural credit requirements where one commercial bank would have been enough, taking into consideration the credit absorption capacity of the area.

Despite the shortcomings of the multi-agency approach in the years to come, what is called for is the strengthening of the rural banking structure, both in the cooperative and commercial banking sectors, and above all the coordination of their respective activities, so that there is no overlapping and no area is left unserved. Banks and the cooperative sector have already set up machinery for mutual consultations and the state governments will have to take an active part in ensuring the required coordination. It is also possible that for areas where cooperative credit had made a little headway special transitional arrangements have to be made such as the establishment of agricultural credit cooperatives, and the financing of agricultural credit societies by commercial banks.

If this multi-agency approach is to be a success several problems have to be solved first. The foremost of these is that of building up institutional framework of the required pattern and quality and strengthening it so as to make it effectively serviceable. Further, it has to be ensured that these institutions adopt correct operational policies with the required degree of efficiency and competent personnel, coordination between different aspects of agricultural programmes, i.e. extension, credit supplies, and marketing, and also between the various agencies engaged in financing agriculture. It is also necessary to coordinate between different agencies involved in agricultural programmes.

Credit to weaker sections

As part of the Integrated Rural Development Programme (IRDP), commercial banks will have to extend credit to the weaker sections of the community on an increasing scale during the Sixth Plan since the programme covers practically every block in the country with a view to generate income sufficient to maintain the rural poor families. The performance under IRDP in the earlier years was not that encouraging due to the fact that only commercial banks were involved in the implementation of the

the programme to succeed, have not lived up to the desired expectations. Hence, the credit administration by commercial banks could not succeed.

In fact, the major deficiency that has been found in the programme is that the plan is not based on a proper household survey and the estimation of the credit requirement is not based on realistic assessment. Further, applications about the identified beneficiaries are sent to the banks in bunches during March by the project authorities and the banking schemes prepared by the agencies are practically standardised for the whole state without taking into account the suitability of the particular activity for the concerned block/district and hence do not stand viability tests of banks. Further, beneficiaries identified are not in contiguous villages but are scattered, as a result of which advancing and follow up becomes difficult. Adequate help is not forthcoming by the project authorities in the post-disbursement follow-up and, finally, lack of infrastructural facilities and inadequacies in the extension services render banks' involvement difficult.

Mounting overdues

One of the major problems faced by commercial banks in financing agriculture is the mounting overdues. The growing incidence of default in repayment of agricultural loans granted by commercial banks has been recently attracting attention not only of the commercial bank authorities but of the public at large. The magnitude of the problem can be judged from the fact that, by and large, the recovery has been hovering around 50 per cent since 1976 though in some states the position is even worse. The mounting overdues continue to cause serious concern. Overdues not only prevent banks from recycling their funds effectively, which is particularly important in the context of scarcity of lendable sources, but continued defaults tend to demoralise the field staff. The major factors which could be responsible for the overdues are internal factors such as organisational arrangements and operational strategies/deficiencies and environmental and external factors. In the case of internal factors, the main responsibility of the financing bank relates to varied systems and procedures followed in regard to identification and selection of borrowers, deficiency in processing the loan applications, lending policies, disbursement procedure, and supervision of the end use of the credit.

Advantage of area approach

Wherever commercial banks adopted the area approach in financing agriculture,

lending. Though the rational advantage of the area approach has been recognised, the operating units have not been able to adhere to this approach either due to over-enthusiasm or because of outside

No doubt, credit is the key element in the development of agriculture since it can remove the financial constraints and simultaneously accelerate the adoption of new technology. Credit facilities are necessary for the commercialisation of agriculture. However, no amount of credit, even at the most reasonable rates, by itself can guarantee higher productivity or income among the rural poor.

pressures. This has indisputably resulted in the dilution of standards of appraisal, followup and supervision. The low recovery is also attributed to delays in sanction or disbursal of loans, target-oriented approach adopted by branches under pressure from outside ignoring the viability of the proposals, lack of integrated approach necessary to ensure provision of credit for all eligible activities, lack of pre-sanction service, irregular post-sanction follow-up, lack of understanding the problems of the farmers and the nature of agricultural economy, stipulation of unrealistic repayment schedules, ignoring the role of other service facilities, etc.

No doubt, credit is the key element in the development of agriculture since it can remove the financial constraints and simultaneously accelerate the adoption of new technology. Credit facilities are necessary for the commercialisation of agriculture. However, no amount of credit, even at the most reasonable rates by itself can guarantee higher productivity or income among the rural poor. Success in this respect largely depends on many factors including availability of complementary inputs, services, sound trade policies, well-managed institutions and appropriate delivery channels.

Adverse effects of defaults

The poor recovery performance of agricultural credit has created problems which have long-term adverse effects. First, it refers the credit institutions' ineligibility to draw refinance from the refinancing agencies. It may be mentioned here that most of the district cooperative banks and land development banks have been denied refinance facilities from the Reserve Bank of India and ARDC. A day, not very far off, may come when the public sector banks are also denied re-

ment and ARDC in respect of improving the recovery performance. Secondly, in the absence of recycling of lendable sources, the pace of administration of institutional credit may slow down which may have deleterious effects on rural development. Thirdly, faced with mounting overdues, credit institutions will be afraid to go wholeheartedly for this work. Decision making process in the field of the credit management becomes difficult in regard to loaning policies, procedures and operations. It may also shake the confidence of the general public and may also result in increasing establishment cost.

The overdues in the agricultural sector occur, apart from the wilful default, because where production and prices in agriculture are beyond the purview of the agriculturists. While assessing the agricultural proposals, especially of the small and marginal farmers, estimation of the incremental income and thereby the repayment schedule are drawn on the basis

of the experience, and the prevailing conditions without foreseeing the possible changes in production and prices, as a result of both weather aberrations and public policies. Many of the small and marginal farmers, whose economic condition is no way better than those of agricultural labourers except for the fact that they have a piece of land to cultivate, are not in a position to absorb the shock that might be imparted due to bad climatic conditions, unlike the bigger farmers who will be able to withstand the onslaught better. It is this harsh reality of rural India that will have to be studied thoroughly by the institutional credit agencies while administering credit. In those cases the default on the part of the beneficiaries is not deliberate but compelled by circumstances.

Urgent solution needed

The problem of the accumulated overdue and arrears of interest have to

be solved urgently. It is necessary to devise ways and means which may include educating borrowers, arranging campaigns and introducing some incentives, rescheduling and extending the repayment period. Thus the approach to agricultural lending as well as the recovery will have to be viewed taking into consideration the institutional factors.

Commercial banks today are saddled with lending to too many borrowers in the agricultural sector, their servicing, supervision and followup and recovery. Commercial banks having entered the area will have to push forward in financing agriculture. There is no way out. The experience gained for the last 13 years will have to be effectively used in tackling these issues, both in coordination with other credit agencies and also the respective state governments for making the programme of agricultural credit a viable proposition in the larger interests of agricultural growth and rural development.

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Agro-forestry: Missed chances

ABOUT 80 per cent of the Indian population lives in rural areas. Nearly half of them live below the poverty line. Their living conditions, instead of improving, have deteriorated after so many years of independence. The Government of India is anxious to improve the living conditions of these people. The nationalised banks were asked to increase their loans to small and marginal farmers and landless labourers for the purpose of improving their economic conditions.

The bankers have tried to grant loans in rural areas though unwillingly. They were disheartened when unexpected dry spells and floods and severe attacks of pests lowered yields of many agricultural crops. The falling prices of various agricultural crops such as cotton, cummin, onions, jute, sugarcane etc have worsened the miseries of these farmers and caused jitters to their bankers. Many farmers could not repay bank loans. Bankers were disappointed, and this disappointment brought forth reluctance in financing anything connected with agriculture. This in turn has developed into a tendency of finding fault with everything related to rural areas. This attitude has hardened over the years and as a result the bankers have now almost stopped trying to understand the new developments in agriculture and agro-forestry. This is the reason why bankers have missed the chance to finance recent increases in production and productivity of agriculture.

The bankers' interest needs to be revived by slow and patient work which can show them how new developments, especially in horticulture* and agro-forestry, have created conditions in which farmers' projects have become highly profit-oriented and creditworthy. The repayment of loans can be made easily and regularly. If the bankers are made to realise this point, there is every reason for them to go all out in financing high profit-oriented agro-forestry and help the nation towards increasing fodder, fuel and forest wealth and in rebalancing the disturbed ecology. If this happens, the

bankers can be proud of being partners in rebuilding the countryside and the nation as a whole. This happens only when their role widens from merely money lending to financing the transfer of the technical knowledge from laboratories and experimental stations to farms.

New promising field

There are two major areas in agriculture, namely agro-forestry and horticulture crops, which have regis-

By V. J. PATEL

tered recent breakthroughs in profits and yields, but they have escaped the notice of the bankers. Developments in one of these, agro-forestry, are dealt in detail here.

In recent times, many articles have appeared on declining forestry. The general trend of all these articles is that the forest wealth is depleting at an alarming rate. People as well as the bankers read this all the time and have lost interest in all the activities associated with forests. In fact, their attitudes have hardened with time. These bankers need to be convinced that there is a new trend in agro-forestry which makes it a highly profit-oriented one and makes its projects really bankable.

New trend in agro-forestry

Bhavnagar district in Gujarat is a drought-prone area. The farmers of Bhavnagar have found a good and effective solution to this problem by raising trees through multi-purpose tree projects. This is a highly profit-oriented activity. About 9,000 farmers of the district have gone in for what is called a "High Density Energy Plantation (HDEP)." The species they selected were eucalyptus and Subabul (*Leucaena*, *Ipil-Ipil* or *Hawaiian Giants*). Both of them are fast growing varieties and have excellent coppicing characteristics (which means when they are cut, they give more stumps, each of which grows into a fresh-tree.)

In one year ten million eucalyptus trees were planted in Bhavnagar

by 9,000 farmers. The trees are grown on farmers' fields and hence are allowed to grow and are saved from illicit cutting. Thus, a new silent revolution has been taking place, where on balance more trees are raised than cut. This will go a long way in rebalancing the ecology. The area will again flourish with greeneries, will have better monsoons, better soil and water conservation and eventually more income for the farmers and for the state.

The concept behind this breakthrough here is to take eucalyptus and subabul trees out of the forests and treat them as farm produce. Then they are subjected to modern farming techniques and are grown with a higher productivity in the farmers' own farms. Their success depends upon five factors:

Close-spacing: With adequate water supply and use of fertilisers, trees are planted closely with spacing of 60 cm x 60 cm. That is, 25,000 trees are planted per hectare. This is six to ten times more than in the conventional farming. More trees per hectare give more income. (This is equivalent to 10,000 trees per acre).

Cutting cycle: The eucalyptus and subabul trees are being cut every three years rather than the conventional every 5 or 7 years. Cut stumps will regenerate into new trees, 2 to 3 coppices, six to ten times faster and denser.

Farm-forestry in vertical direction: Because of close planting, there is struggle for survival: the trees therefore, grow straighter and taller and give better poles. The roots also penetrate deeper, better for taking nutrition from the soil, deep below.

Multi-storied farming: In between the trees, farmers can grow other crops at different levels: e.g. spices in the "ground floor", creepers in the "central storey" and eucalyptus or subabul in the top floor — thus creating multi-storied more profitable agriculture.

Border plantation: Eucalyptus or subabul can be densely planted as border strips, five to fifteen rows thick. This can profitably replace traditional hedging and is environmentally useful for the farm and around industrial areas. The border plantation acts as a real wind breaker, increasing the yield of other

*Refer to author's paper: Making

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The eucalyptus and subabul trees are a versatile product. In these days of shrinking forests and dwindling resources, they will prove very valuable. They can be used as poles, posts, rafters, wood for paper pulp or as a fuel directly as firewood or for gassification, producing both energy and charcoal.

Cost of raising one acre (0.4 hectare) of HDEP

The know-how of raising HDEP is now freely available and can be given to the farmers. For the success of the project, the farmer's family should be kept busy on their own farm. This is possible if the family gets necessary subsistence or support allowance regularly. A monthly allowance of Rs 150 for first three years should be adequate. The HDEP is due for cutting in the fourth year. The total expenditure of raising HDEP during three years comes to Rs 23,000 (Table 1). It is needless to stress that the success of the scheme depends upon the personal attention and personal labour put up by the farmer's family. This is a major departure from the established practice of financing the project and hence needs special attention.

Table 1 : Cost of raising HDEP for three years

1. Cost of raising HDEP till it reaches cutting during 3 years	Rs. 17,500
2. Monthly support allowance for three years 150x36	Rs. 5,400
Total	Rs. 22,900
i. e. say	Rs 23,000

Income from one Acre

Many farmers have succeeded in raising 9,000 trees out of 10,000 trees planted in an acre. Selective cutting was started by the author in Surendrabag which has promoted this movement, in the fourth year. A continuous cutting cycle is established where one-third is cut in the fourth, fifth and sixth years. In the seventh year, trees first cut in the fourth year are ready for cutting again. Each tree cut at Surendrabag gave an average income of Rs 20. Considering that for the other farmers the agricultural efficiency will be half and the marketing efficiency will also be half of that of Surendrabag, the price per pole can be safely assumed as Rs 5 in the fourth year, Rs 6 in the fifth year and Rs 8 in the sixth year. Thus, the yearly income from 3,000 trees cut every year brings an annual income of Rs 15,000 in the fourth year and Rs

Table 2 : Income per acre per year (in rupees) (Trees cut every year—3,000 nos.)

Year	Price per tree	Total income	Money to be left with farmer	Money for repayment
4	5	15,000	10,000	5,000
5	6	18,000	10,000	8,000
6	8	24,000	10,000	14,000
Total		57,000	30,000	27,000

Can banks take risks?

As already explained, the amount of loan required for HDEP till it starts repaying is Rs 23,000 including interest at 12.5 per cent for small and marginal farmers. This is to be advanced to farmers whose land holding is small, whose technical know-how is poor, who have practically no resources and who live below the poverty line, almost at the level of destitution. There is some hesitation in advancing such loans. But the best way of understanding this problem is—

What is the value of crop after three years?

Can HDEP generate repaying capacity of these farmers?

Amount of repayments

Value of the crop after three years: As already explained in Table 2, the total value of the crop till one rotation of cutting is completed is Rs 57,000 if a cutting cycle of three years is established. If all trees are cut in the fourth year and each tree fetches Rs 5, the total value of the same is Rs 45,000. If the regular cutting cycle is established the income till first cutting is over comes to Rs 57,000.

Repayment of loans: Let us consider the question of repayment of loan. The repayment depends upon the gross income and financial requirements for maintaining the farm and family. The farmer needs Rs 10,000 per year (as shown in Table 3) which includes family allowance,

Table 3 : Money to be retained by the farmer every year in fourth year onward.

1. For the family	Rs. 5,000
2. For maintaining HDEP	Rs. 3,000
3. For cutting 3000 trees	Rs. 1,500
Total	Rs. 9,500
i.e. Say	Rs. 10,000

Table 4 : Repayment (In rupees)

Year	Total Income (Rs.)	To be retained by farmer (Rs.)	Repayment (Rs.)
4	15,000	10,000	5,000
5	18,000	10,000	8,000
6	24,000	10,000	14,000

maintaining HDEP and cost of cutting of 3,000 trees.

Amount of repayment: After retaining Rs 10,000 every year, the repayment in fourth, fifth and sixth year can be Rs 5,000, Rs 8,000 and Rs 14,000 making the total repayment in three years Rs 27,000 which means he can complete the repayments within three years with only 50 per cent efficiency. If the farmer is imparted full training in agronomical practices and is helped in marketing, and if his agricultural and marketing efficiencies go up, his yearly income can go up from Rs 15,000 to as high as Rs 60,000 just from one acre (0.4 ha) of plot under agro-forestry. If this happens, repayments can be completed even in one year!

This clearly shows that in the fourth year the value of standing crop is double that of loan to be advanced and repayment can be completed within one to three years after the income starts pouring in. This makes a very sound case for financing the agro-forestry projects. In fact, there is no risk involved in financing these projects — they are better than any industrial projects which bankers finance so readily.

Future of agro-forestry

The work on agro-forestry does not end with HDEP of eucalyptus and subabul. The feasibility of growing other forest crops, such as teak, bamboo, etc, as farm product is being investigated at Surendrabag and in other farms in Bhavnagar district. Results of the same are expected within three years but early indications are that these crops may pay more than eucalyptus and subabul.

Further reading :

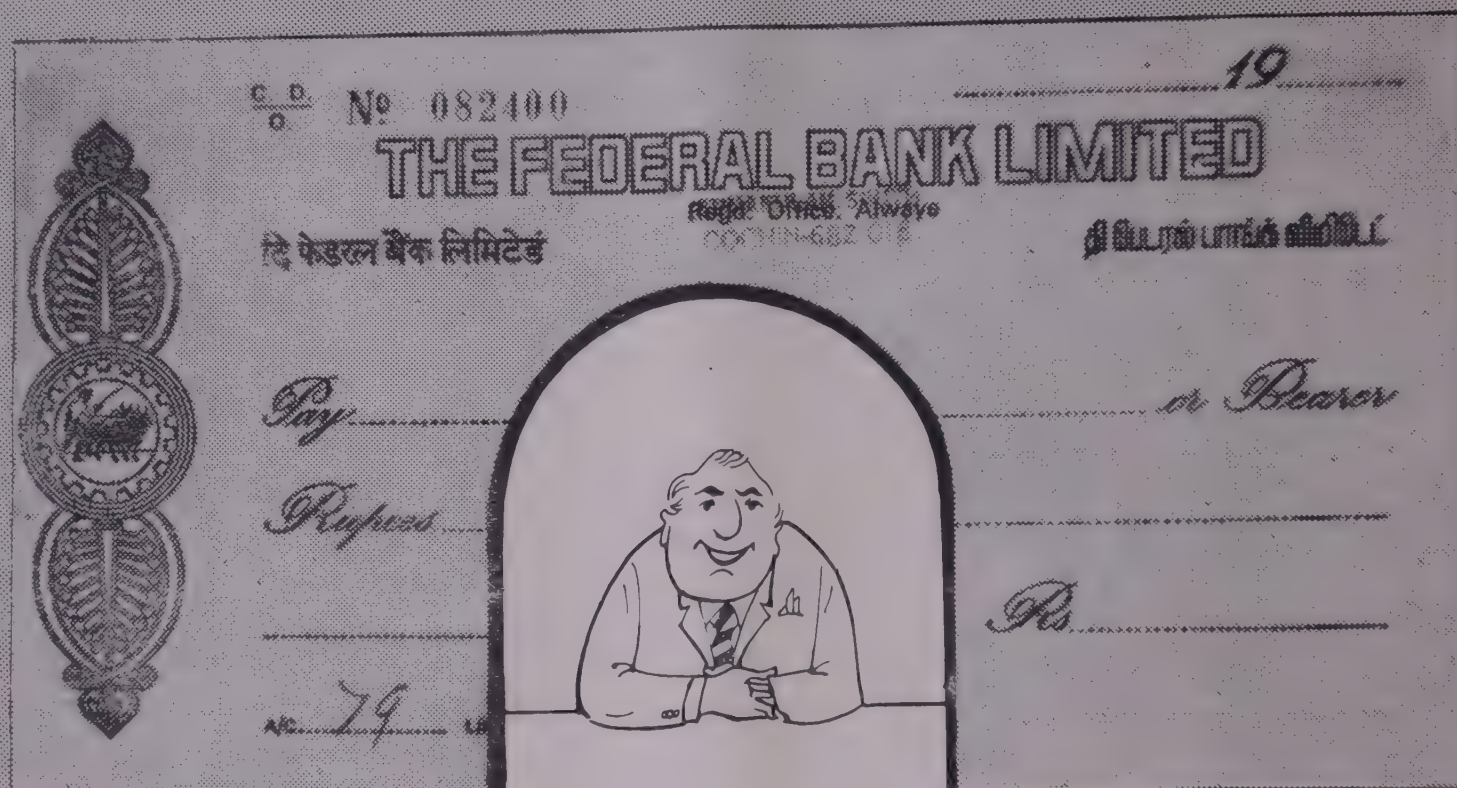
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Information system for bank finance to industry

THE term information system for bank finance to industry and trade has come into limelight in recent years, especially after the submission of the Report of the Study Group to Frame Guidelines for Follow-up of Bank Credit headed by Mr Prakash Tandon in 1975. This, however, does not imply that no information was required to be provided by the borrowers of bank finance to the banks in the past. The main difference lies in the emphasis on obtaining formal information about borrowers' operations and its linkage with provision of bank finance to large and medium scale industry and trade for working capital purposes.

One of the major recommendations made by Tandon Study Group concerns the submission of quarterly information returns by the borrowers falling within its purview—borrowers enjoying aggregate credit limits of Rs 1 crore and above. In compliance with the Credit Authorisation Scheme introduced by Reserve Bank of India in 1965 also, borrowers with credit limits of more than Rs 2 crores in private sector and Rs 3 crores in public sector are required to furnish quarterly returns on actual performance and projection of business operations.

Recently, the report of the Working Group appointed by the Reserve Bank of India to Review the System of Cash Credit (headed by Mr K. B. Chore) made it obligatory on the part of large borrowers to furnish quarterly returns on projections and actuals of operations and half-yearly returns on operating data and fund flows.

The focus of this article is on understanding the purpose and nature of information system currently required in connection with bank finance, highlight its implications and to offer suggestions for successful implementation of this vital aspect of the lending system proposed by Chore Group.

Need for information systems

The need for getting information about the borrowers' operations at frequent intervals arises on account of the changed role of commercial banks after their nationalisation in 1969. The banks are now expected

to actively participate in bringing about the much-needed development in the socio-economic status of the country. They are expected to provide only supplementary finance for carrying current assets to large and medium scale industry and trade and the borrowers' contribution from long-term sources other than bank borrowings for financing these assets is being stepped up gradually, there-

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by reducing over-dependence on bank finance. Further, lending based on 'creditworthiness of purpose' is gradually replacing security-oriented lending, giving rise to the need for establishing a linkage of lending to production and productivity. Consequently, a comprehensive credit investigation and follow-up of bank credit has become inevitable. According to the Tandon Study Group, a bank has to follow up and supervise the use of the credit to verify the following:

(i) Whether the estimation of production, sales and operating data on which the lending decision was taken by the bank, continue to hold good both in regard to the borrower's operations, as well as, environment; and

(ii) Whether the end use of funds is in accordance with the purpose for which credit facilities were sanctioned.

In conducting such a follow up of bank credit, the bankers' concern is with the borrowers' total operations and not merely with the inventories and receivables. Therefore, the bank needs information on the undernoted aspects:

Operations:

(a) Have the terms and conditions stipulated for the loan been observed?

(b) Is the borrower keeping to the original plan of operations, and are his costs, sales, profits and fund flow according to plan?

(c) Is the security in order?

(d) Are there any danger signals

and, if so, what remedial action can be taken to cover the deficiencies and restore operations to normal health?

Management:

(a) Is the company properly managed?

(b) Have there been any changes in the ownership or management pattern?

Environment:

(a) Have there been any changes in the business environment or in governmental laws and regulations affecting the customer or the banker?

(b) Any other considerations which may adversely affect the bank's position in future; for example, whether there are arrears of payment to cane growers in the case of sugar mills (Reserve Bank has already suggested to banks a detailed procedure to watch this position) or whether adequate provision has been made for dues to employees, etc.

For the purpose of follow up and supervision of the end use of credit on the aforesaid lines, the Tandon Study Group suggested that a borrower should submit to his bank: (i) Quarterly operating statement showing details of sales, expenses, profit or loss in part A and current assets and current liabilities in part B, and (ii) Quarterly fund flow statement showing projections and actuals for the last quarter and projections for the subsequent quarter. Borrowers with limits of Rs 1 crore and above must in addition submit half-yearly pro-forma balance-sheet and profit and loss account.² However, the quarterly information system prescribed by the Tandon Committee and Credit Authorisation Scheme of the Reserve Bank of India has yet to take firm roots. Moreover, a wide gap between the limits sanctioned and actually availed of by the borrowers exists in actual practice.

1. Report of the Study Group to Frame Guidelines for Follow up of Bank Credit, Chairman Mr Prakash Tandon, Reserve Bank of India, Bombay 1975, para 8.1

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While reviewing the present lending system of the banks, the Chore Group studied in detail the magnitude of this problem and estimated that this gap roughly amounted to one-third of the sanctioned limit.³

Chore Group recommendation

To overcome these anomalies and to streamline the lending system of commercial banks, the Chore Group recommended drawal of funds by the borrowers to be regulated through quarterly statements to be furnished by the borrowers with aggregate working capital credit limits above Rs 10 lakhs. While accepting the recommendations, the Reserve Bank of India raised this limit to Rs 50 lakhs for immediate implementation and urged the banks to enforce some discipline in stages on all borrowers with credit limits of less than Rs 50 lakhs. Commenting on the importance of the quarterly returns, the working group felt that the success of their proposed lending scheme depends a great deal on the timely submission of these returns to enable fixation of operative limits⁴ before the commencement of the quarter. "As the quarterly information system is a part and parcel of the revised style of lending under the cash credit system, it is absolutely necessary that the borrowers should submit these returns in time"⁵

Details of returns

The information system recommended by the Chore Group consists of three returns described below:⁶

(a) Form No. (i)—Quarterly projections of current assets and current liabilities (including bank borrowings). This is required to be submitted in the last week of the quarter preceding the quarter for which the projections have been made.

(b) Form No. (ii)—Quarterly Actual Performance showing actuals and estimates: It includes informa-

tion on current assets and current liabilities for the quarter. It also compares the actuals with the estimated production and sales for the latest quarter. This report also seeks information on the estimates and actuals regarding production and sales during the current accounting year. The data on actual production and sales for the current accounting year is further split up on a quarterly basis. This statement is required to be submitted within six weeks of the end of the quarter to which it relates.

(c) Form No. (iii)—Half-yearly operating and funds flow statement: This statement has two parts and has to be submitted within one month of the close of the half year to which it relates and contains information on the estimates and actuals for the half year just ended and an estimate for the forthcoming half year. Part A is a half-yearly operating statement which gives information regarding sales, cost of goods sold, interest and other expenses and profitability. Part B is half-yearly funds flow statement which presents the sources and uses of the funds.

Penal provisions for non-compliance

The Chore Group has prescribed penal provisions for non-submission of the returns within the stipulated time. The penalty consists of a levy of a penal rate of interest of one per cent per annum more than the contracted rate for the advance from the due date of the submission of the return till the date of its actual submission on the whole of the amount outstanding.⁷ Further, in the event of an excess or underutilisation of the operating limit beyond the tolerance limit of ± 10 per cent, the borrower would be liable to penal interest at a rate to be fixed by Reserve Bank of India.⁸ The letter has fixed the penal rate at one per cent per annum. In case of persistent default/irregularity, the borrower would run the risk of his account being frozen by his bank after giving an initial advance notice to the borrower and intimation to other banks in cases of consortium arrangements for bank financing.

Implications suggestions for implementation

The information system described above has significant implications for the borrower and the bank and

useful suggestions can be made by way of actions to be taken by both for its successful implementation. These are:

1. **Streamlining of borrowers own management information systems:** Just as an efficient management information system is vital for provision of timely and relevant information to all the levels of management within a company for decision making, planning and control on sound lines, it is equally necessary for making sound lending decision by the bank. Since both the bank and the company have common interest in the continued growth, profitability and survival of the company, both of them must have the benefit of timely and relevant information for their decision making. This would not only enable the bank to make appropriate lending decisions for the company concerned, but also enable it to have an effective credit planning of its own operations. Borrowers should, therefore, set up an efficient information system within the company to avoid delays in supplying the requisite information to the banks. The borrowers falling within the purview of Credit Authorisation Scheme i.e., with credit limits of Rs 2 crores and above have already been introduced to the requirement of quarterly returns. The coverage of borrowers with limits above 50 lakhs, through implementation of Chore Committee's recommendations, simply enlarges the list of borrowers who have to furnish the quarterly information. There should be no difficulty on the part of such large borrowers in fulfilling this obligation as they would normally be already having an efficient system of accounting and information. If a large borrower of this size does not have such a system, this fact by itself makes him unfit for provision of large bank borrowings.

2. **Ensuring quality of information supplied by borrower:** In addition to timely submission of the quarterly returns quality of information supplied should be ensured at all costs. This would lead to a reduction in the delays in decision making by the banks and obviate the need for resorting to the penal provisions, as the actual performance would not under normal operating circumstances vary more than ± 10 per cent. To ensure quality of the projections to be submitted by the industrial/trading borrower, a sin-

2. Report of the Tandon Study Group, Ibid., para 8.8 and 8.9

3. Report of the Working Group to Review the System of Cash Credit, Chairman, Mr R. B. Chore, Reserve Bank of India, Bombay, 1979 para 3.4

4. Operative limit for the quarter represents the requirements of the funds for the quarter indicated by the borrower to his banks based on his budget. Of course this has to be within the sanctioned peak levels/non-peak level period limits.

6. Ibid para 5.21 and appendix V

7. Ibid 5.21

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8,704	Share fractional certificates and premium	8,104	21,40,21,561	Investments	29,75,70,762
63,90,500	Reserve Fund etc.	84,65,000	86,36,86,520	Advances	1,00,04,62,402
117,29,35,159	Deposits	136,05,63,720	31,28,67,658	Bills receivable acceptances, endorsements, chit assets as per contra	38,46,70,604
7,35,51,035	Borrowing from Banks, IDBI etc	8,22,77,997	42,46,519	Premises	1,01,51,126
3,25,74,790	Bills payable	3,85,62,862	63,29,890	Furniture & Fittings	70,69,105
31,28,67,658	Bills for collection acceptances, endorsements and chit liabilities as per contra	38,46,70,604	2,70,61,920	Other Assers	4,19,91,283
12,52,77,499	Other Liabilities	15,10,51,862	18,616	Non Banking Assets	8,351
68,252	Profit	12,00,395			
173,12,23,547	TOTAL	203,45,49,894	173,12,23,547	TOTAL	203,45,49,894

of several executives working in different functional areas of the company for making realistic forecasts of operations. It is needless to mention that the quality of information and the quality of management go together and the former cannot be isolated from the latter.

3. Processing of information by the banks: An important question that arises is regarding the ability and skill on the part of the bank's staff to process the quarterly information returns furnished by the industrial customers and assess their requirements of bank finance accurately. Will the banker have the time, ability and patience to sift through the information supplied by the industrial borrowers? "Comprehensive credit investigation would make a much greater demand on the time of the bank manager than the simpler check on the value and location of the collateral"⁹. Also, if no action is taken on the returns submitted by the borrower and they are simply filed, borrowers will not retain enough motivation and seriousness for compiling and furnishing the requisite information. This will be suicidal to the basic purpose of the Chore Group in regulating drawal of funds by quarterly information returns furnished by the borrower. There is, therefore, need for training the staff of the banks and equipping them with the necessary ground rules for discharging this added responsibility effectively. Moreover, the processing of information supplied by borrowers can be made by specially trained staff located in regional offices, as most of the large borrowal accounts are concentrated in metropolitan and large city areas.

4. Simplification of formats: The Chore Group has to some extent simplified the formats of the information returns. While the Tandon Study Group required quarterly projections of profitability and fund flows, the Chore Group has made it half-yearly feature. It is hoped that the borrowers should find it convenient to supply the information. To simplify the formats further, it is often suggested that forms I and II i.e. projections and actuals should be combined into a single statement. Information on actual performance could normally be available only two weeks after the close

of a quarter, while estimates for the forthcoming quarter have to be supplied atleast one week before it starts. Obviously, information on the actual performance and the projections cannot be combined into a single statement. Thus separate forms are needed for actual performance and projections.

5. Appreciation and understanding in applying penal provisions: Further, there is need for a better understanding and appreciation of the importance of quarterly information system on the part of the borrowers and the banks. There is no escape from the compliance of the monetary discipline being sought by regulating drawal of funds through the quarterly information system and imposing penal provisions in case of default/irregularity. Since the bank is equally interested in the survival, profitability and growth of the borrowers' business, the borrowers should co-operate by furnishing timely and reliable quarterly information required by the Chore Group. Bankers on the other hand should not levy the penal interest of one per cent in the case of a casual deviation of more than ± 10 per cent or delay in submission of reports for reasons beyond the control of the borrower. Likewise, freezing of

accounts should be resorted to only in extreme cases of irregularity and as a last measure, as this would make an account sticky and the bank would experience difficulty in recovering the amount lent. It would be better if the power for freezing of an account rests with the higher levels of management of the banks.

In the final analysis, the new system of lending including information requirements proposed by Chore Group is no more than a help to better understanding of the customers' requirements. Success in implementing it demands a change in the attitudes of the borrowers, as well as banks. Both the parties must regard a comprehensive credit investigation and follow up based on the information about borrowers' operations as an essential element in bank lending rather than a waste of time and effort. To this end in view, banks must also shed their obsession with security atleast for very large borrowers. "The banker would then perforce have to take genuine interest in the borrower's general health—his profitability, production operations, cash position, management efficiency etc."¹⁰

10. Gupta LC Ibid, p. 438

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Impact of bank finance on the decentralised sector

By M. N. UPADHYAY and V. S. KAVERI

FINANCING of the decentralised sector, including artisans and small traders, has assumed major importance in the development strategies adopted recently. The importance of this sector is crucial as it is labour intensive and is capable of generating considerable income and employment potential while making maximum use of locally available resources. Institutional finance for this sector has not kept pace with the demands of official policies, age-felt needs of artisans and small traders. Some of the financing agencies, particularly banks, have set into motion a variety of schemes for supporting the decentralised sector, which have been implemented with varying degrees of success. With the introduction of the new innovative lending policy, this sector has been included in the priority sector and has been given full support for development. Skills and expertise of the applicants now form the basis of lending.

In view of the 20 point programme it is certain that this sector will continue to get liberal financial assistance from banks and at this juncture it is appropriate to examine how far the small sector has benefited from bank assistance. In other words, it is desirable to assess the extent to which bank finance has made an impact on the growth of the sector. It is expected that small borrowers would expand production by utilising bank finance and hence their business income would be raised proportionately. With the increased income it is further expected that their standard of living would be raised by spending a reasonable part of the increased income on consumption, clothing, education, health, etc. Thus, it is necessary to examine how far these expectations have come true. If bank finance has not made

any significant impact on the business of small borrowers, the reasons should be understood and an attempt should be made to overcome the problems, if any. With this background, a study was initiated at National Institute for Bank Management (NIBM) with the following objectives:

1. To examine the impact of institutional finance on the growth of the decentralised sector,
2. To find out the extent of change on the living status of the small borrowers with increased/decreased income.
3. To offer suggestions for the effective implementation of the relevant scheme of the banks.
4. To understand the difficulties of the non-borrowers of banks in availing of bank assistance and suggest remedial measures.

Methodology adopted for data collection

Basic data required for the study were collected from:

- Borrowers
- Non-borrowers
- Banks
- Development institutions, including district industries centres (DIC), All India Handicrafts Board (AIHB), and Khadi and Village Industries Commission (KVIC).

1. Borrowers:

Data were collected through questionnaires developed for the borrower, non-borrowers, branch managers and development institutions. The questionnaire prepared for the borrowers covered the following areas of inquiry:

1. Profile of the borrower.
2. Economics of unit in the

3. Growth of the small borrowers by availing of bank finance.

4. Borrowers' views and suggestions on bank policies and procedures with special reference to financing of the small sector.

5. Data relating to impact of bank finance on business/unit.

A sample of 278 borrowers was obtained and stratified according to the line of activity, place of operation and repayment performance of bank loan. Data were collected by contacting borrowers in different parts of the country providing fair representation to the various regions in the country as follows: Kutch (Gujarat); Tanjore (Tamil Nadu);

It is expected that small borrowers would expand production by utilising bank finance and hence their business income would be raised proportionately. With the increased income it is further expected that their standard of living would be raised by spending a reasonable part of the increased income on consumption, clothing, education, health, etc. Thus, it is necessary to examine how far these expectations have come true.

Channapatna (Karnataka); Panipat (Haryana); Gunjam (Orissa); Jagdalpur (Madhya Pradesh); and Bankura (West Bengal).

The number of borrowers selected from the above districts is given in Table 1.

These borrowers were being financed by different banks namely, Canara Bank, Indian Overseas Bank, State Bank of India, United Bank of India and Punjab National Bank. For selecting the borrowers in each district, basic data regarding names of the borrowers, line of activity and repayment performance were collected from bank records. The list of

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selected borrowers was prepared in consultation with the concerned branch manager in each area.

2. Non-borrowers:

Along with the borrowers, 165 non-borrowers were studied from the same areas. The number of non-borrowers covered in each of the districts is stated in Table 1.

The questionnaire prepared for non-borrowers covers the following areas of enquiry:

- (i) Profiles of non-borrowers
- (ii) Economics of their business
- (iii) Need for bank credit
- (iii) Difficulties in availing of bank credit
- (v) Suggestions to overcome their difficulties in availing of bank credit.

Non-borrowers were selected randomly in the respective areas. The number of borrowers and non-

.....artisans in general stick to their traditional activity, i.e. handicrafts/cottage industries, but the defaulters in the category of self-employed were engaged in non-traditional activity. In the case of retail trading, 92 per cent of the retailers dealt in non-traditional items and all the defaulters in the retail trading category were engaged in non-traditional activities.

borrowers selected from the seven districts is given in Table 1.

Borrowers and non-borrowers were classified into two categories namely, retail trading and self-employed. In the retail trading category, vegetable vendors, fruit vendors and retailers in grocery were in a majority. The majority of self-employed consisted of artisans dealing in traditional handicrafts/cottage industries.

It is evident from Table 1 that nearly three-fourths of the borrowers were self-employed while the percentage in the case of non-borrowers was slightly higher. Considering the repayment behaviour of the borrowers, nearly one-fifth of them were irregular in their repayments. The number of borrowers covered in each of the areas varied in the range of 15-51, whereas the number of non-borrowers from each of the areas varied within the range of 14-31. The study considered a sample of 278 borrowers and 165 non-borrowers, thus making a total sample of 443.

and non-borrowers were almost in the proportion of 2:1.

3. Branch managers

A sample of 22 branch managers of different banks operating in the selected areas was adopted for understanding the operational problems of branch managers in financing small borrowers. A well structured questionnaire was designed for branch managers, seeking information on the following aspects:

- (i) Operational problems in financing and decentralised sector.
- (ii) Experience in the recovery of loans.
- (iii) Suggestions for making changes in the bank's policies and procedures relating to the financing of small borrowers.

Discussions were held with the concerned officials and authorities in the AIHB/KVIC and DICs to assess their involvement in the development of the sector and relevant operational problems.

ANALYSIS OF DATA RELATING TO BORROWERS

Observations emerging from the analysis of data are discussed in the following paragraphs:

I. Profile of the borrowers

1. **Classification of borrowers by line of activity:** Nearly three-fourths of the borrowers were self-employed, artisans dealing in traditional handicrafts. Seventytwo out of 278 borrowers dealt in retail trading mainly in vegetables, fruits, groceries etc (Table 1).

2. **Age of the borrowers:** Majority of the borrowers i.e. 244 out of 278 were below 50 years of age. Nearly half of the borrowers were young (below 35) which suggested that banks encouraged unemployed youths to start business. Majority of the defaulters were below 50 years of age. Hence, age was not a significant factor to discriminate borrowers into good and defaulting.

3. **Family business:** Data revealed that artisans in general stick to their traditional activity, i.e. handicrafts/cottage industries, but the defaulters in the category of self-employed were engaged in non-traditional activity. In the case of retail trading, 92 per cent of the retailers dealt in non-traditional items and all the defaulters in the retail trading category were engaged in non-traditional activities. A few artisans finding lack of demand for traditional items had shifted to retail trading. Similarly, educated unemployed youths from the trading community were engaged in handicrafts after receiving a formal training from AIHB.

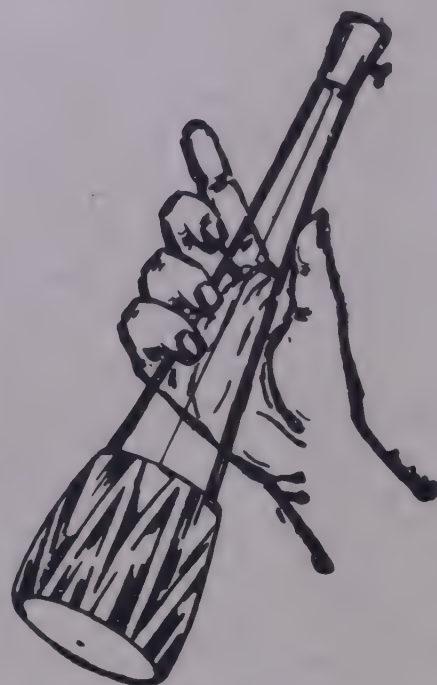
4. **Other source of income:** House rent, interest on bank deposits, salary and wages earned by the members of the family etc, constituted the other sources of income of the borrower. Fortyseven per cent of the borrowers did not have such income. In the borrowers' families, except for him no one else was employed. Data revealed that most of his dependents were either too young or too old to work elsewhere. But borrowers had other income by way of undertaking petty job work. When such income was studied, seventy-three out of 127 borrowers had other income upto Rs 200 p.m. which appeared to be meagre taking into account the size of the family.

5. **Literacy status of the borrowers:** more than half of the borrowers were illiterate and among those literate nearly 20 per cent could just read and write. The percentage of literacy was slightly higher in the case of self employed, because nearly 10 per cent of the artisan were educated youths who had received a formal training from AIHB and were included in the self-employed category.

6. **Previous experience of the borrowers:** Persons having some previous experience in the present line of activity generally fared well in business. Nearly 85 per cent had

Table 1: Classification of borrowers and non-borrowers by area of operation and activity

	Borrowers				Non-Borrowers			
	Retail Good	traders Defaulter	Self employed Good	Defaulter	Total	Retailers	Self employed	Total
Kutch	20	—	26	1	47	8	16	24
Tanjore	10	3	31	6	50	5	25	30
Channapatna	2	1	15	9	27	3	25	28
Panipat	1	1	28	21	51	3	28	31
Ganjam	5	2	31	—	38	2	12	14
Jagdalpur	22	2	11	15	50	4	14	18
Bankura	2	1	11	1	15	7	13	20
	62	10	153	53	278	33	132	165



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such experience and the percentage of those having some experience was slightly higher in the case of self-employed. Most of the artisans dealing in traditional handicrafts had to serve apprenticeship for a sufficient period under a master craftsman. Forty per cent of the retailers did not possess any previous experience. Majority of the defaulters, i.e. 87 per cent of the total, had some experience, suggesting that the length of experience was not a significant factor to discriminate the groups.

More than three-fourths of the borrowers had experience of at least five years, and self-employed were generally more experienced than retailers. Sixty five per cent of the artisans continued their family business in traditional handicraft/cottage industries whereas less than 8 per cent of the retailers had been dealing in family business. Thus, artisans in general specialised in family business and, therefore, had to suffer much when the demand for traditional items of handicrafts declined.

7. Motivation to set up business: According to the borrowers, the factors which motivated them to start business include: (1) High demand for their products, (2) liberal credit schemes of the banks, and (3) availability of work at their home towns.

Among the factors, the high demand for the products had been the most influential motivating factor. Those being attracted to their hometown were not many. Nearly 60 per cent of the borrowers were motivated to set up business with liberal credit facilities provided by banks.

8. Assistance received from family members: Sixty per cent of the borrowers received assistance from their dependents, particularly from adults. Artisans were more dependent than the retailer. In the case of traditional handicrafts, female members were intensively employed. Children in general did not assist in business after school hours which suggested that borrowers encourage them to devote their spare time to studies.

I. Business data

Business data related to location of business, basic infrastructure, supply of raw materials, marketing etc. Observations made in respect of the analysis of business data are discussed below:

1. Location of business: Retail-

employed. Artisans dealing in handicrafts concentrated in a particular place so that distribution of work was easy. It was understood that most of the artisans did business in the rear portion of their house and many of them expected financial assistance from banks to get it repaired/remodelled. Most of the retailers in the sample have their business shops near the market place.

2. Infrastructural facilities: Electricity supply, water supply, transportation, telephone, bank facilities, etc, provided basic infrastructure. Retailers did not emphasise the need for transportation as the supply of materials was taken care of by the wholesalers. Many of the artisans indicated their inability to use mechanical devices due to their weak financial position although power was assured. None of the borrowers experienced any problem in regard to water and electricity supply. But

Artisans did not have direct linkages with emporia/government agencies/marketing outlets. Hence they had to depend upon the local merchants for marketing also. The local merchants took advantage of competition and, therefore, bid low prices for the products of the artisans. Retailers faced marketing problems wherever there was tough competition.

lack of transportation had been the main problem for artisans. According to them, transportation cost was high and unbearable and it was not easy to transfer the same to consumers in view of the competitive market.

3. Supply of raw materials: Most of the borrowers i.e. 80 per cent of the total, depended upon local raw materials. Artisans in general located their business near the source of raw materials — to minimise the cost of transportation. Artisans did not have direct access to local raw materials, which they obtained through local merchants. They pointed out that the merchants charged exorbitant prices and exploit the artisans. Artisans being financially poor could not store the raw materials to gain economies of bulk purchase. Raw material had to be purchased either on cash basis or on credit for a period of a week or so. It was pointed out in Channapatna that the raw materials, namely, lacquer as a raw material was auc-

chants bid during auction and lifted the material by paying cash. Artisans had no direct contact with the forest department and hence they depended heavily on the local merchants. A few artisans attempted to form a cooperative society for the supply of raw materials but due to the resistance from the local merchants the society did not come into existence. Thus, non-availability of materials at reasonable cost had been a major problem of the artisans.

Sixtytwo per cent of the borrowers did not avail any credit for raw materials. Retailers generally obtained credit from the wholesalers. Defaulters took a longer period to settle their dues with local merchants. Thus artisans in particular had lived at the mercy of local merchants who were the source of the supply of raw materials to them.

4. Availability of labour: Artisans required skilled labourers to make the sophisticated parts of handicrafts. Owing to their inability to pay higher wages to skilled labourers, they employed their dependents after giving them job training for a sufficient period. With mechanical devices being employed, many of the skilled labourers are under employed. Similarly, with uncertainty of demand, artisans did not employ skilled labourers on a regular basis. Thus, the living conditions of the labourers were very poor although they were highly skilled.

5. Servicing of plant and machinery: Nearly half of the artisans carry out operations with the help of some machinery and, therefore, they need the services of mechanics in the case of technical faults/failures in the machines. Except two artisans, none of them faced any difficulties in maintenance of machines. It was understood that many of the artisans repaired on their own machines unless there was a major fault in the machine.

6. Job work: Ninety per cent of the artisans undertook manufacturing activities and the rest did job work. The percentage of those undertaking job work was relatively high in the case of defaulters whose income was low.

7. Marketing: Artisans in particular assess that the demand for products was adequate, yet their income was very meagre. It was understood that the local merchants placed orders for their products at unremunerative prices. Artisans did not have direct linkages with emporia

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ets. Hence they had to depend upon the local merchants for marketing also. The local merchants took advantage of competition and, therefore, bid low prices for the products of the artisans. Retailers faced marketing problems wherever there was tough competition.

It was also observed that the products of the artisans were sold at nearby tourists centres. Four-fifths of the retailers sold their products in the local area. Wherever the demand for the products of the borrowers was seasonal, their income was very low. During the off season, they borrowed from local merchants at an exorbitant rate of interest. The merchant often doubled as money-lender and raw material supplier.

Unlike the retailers, artisans had to sell their products to a single buyer namely, the local merchants and, therefore, prices paid by the local merchants for the products were very low. Consequently, artisans had to make do with low incomes and that too at the mercy of the local merchants.

8. Product mix: Majority of the borrowers, i.e. 196 out of 278, dealt in a single product. Artisans in particular specialised in a single line or item of handicraft. There was a danger of closure of business when the demand for the product fell. It is understood that artisans with their low income could not cope up with the changes in demand. The percentage of those dealing in a single product was relatively high in the case of defaulters, who pointed out that with the declining demand for their products it was not possible for them to repay the bank loan. Artisans preferred to specialise in multi-products provided bank assistance was assured.

9. Credit granted to customers: Nearly 57 per cent of the borrowers had to grant credit on finished goods, ranging from one week to eight weeks. The percentage of borrowers granting credit on finished goods was high in the case of artisans. It was understood that the artisans had to purchase raw materials on cash basis but they had to grant credit on finished goods. Thus, there was a need for bank assistance to discount bills.

I. Views and suggestions of borrowers on bank policies and procedures

1. All the borrowers except one felt that with bank finance it

dard of living. Defaulters in general felt that banks provided inadequate finance to meet business requirements.

2. Nearly 61 per cent of the borrowers approached banks for credit facilities on their own by going through advertisements. The percentage of borrowers who approached banks through friends and relatives was 22. It was gratifying to note that 20 out of 278 borrowers were contacted by the bank staff before availing of bank credit. Though a small beginning it augurs well for the future.

3. Most of the borrowers received guidance from banks in respect of preparation of project proposal and/or filling in of application forms. However, borrowers expected bank guidance in other areas namely, keeping of books of accounts, management of funds, selection of line of business, marketing of products, etc.

4. Nearly 40 per cent of borrowers experienced under-assessment of credit requirement by banks and, therefore, it was not possible to raise business income satisfactorily. The percentage of those who experienced under-assessment of credit, was high in the case of self-employed and also in the category of defaulters.

5. Nearly half of the borrowers thought that skill and expertise had not been considered as adequate security for availing bank credit. This suggests that banks some time continue to be security minded and hence it has been difficult for artisans to raise assistance from banks.

6. Nearly 44 per cent of the borrowers indicated that banks discriminate between big and small depositors. According to them, banks favour big depositors and provide better services to them. Bank staff are not attentive to small borrowers who fail to keep any sizable deposits.

7. All the borrowers, except five, opined that the present scheme of financing of small business is well suited to their business and no changes in the scheme are needed. All of them pointed out that the schemes of banks are useful for raising business income, but thought that it may be implemented sympathetically.

8. Majority of borrowers, i.e. 270 out of 278 borrowers assessed felt that information asked by banks at the time of sanction was very reasonable and there were no difficulties in furnishing the same. However,

9. Nearly half of the borrowers found the bank procedures cumbersome and suggested simplification. Delays in bank sanction could be minimised if the procedures were simplified.

10. Sixtythree out of 278 borrowers were irregular in repaying bank loan instalments. Low income from business operations had been the main reason for irregular repayment. In a few cases, repayments were not made deliberately.

11. Nearly one-fifth of the borrowers opined that banks never come out to help small borrowers in their difficulties. According to them, banks took a long time to sanction loans and they could not wait till then. One of the reasons for the delayed sanction was the bank procedures which were cumbersome.

IV. Views and suggestions of borrowers on the working of development institutions

1. The percentage of the borrowers who are in contact with development institutions such as AIHB,

If the entire bank borrowings were invested in the business, income of the borrower should have gone up considerably. However, bank finance had not created any significant impact on this sector since the end-use of finance was not fully ensured.

KVIC, DIC, etc, Khadi Board, etc was only 51. Artisans, in particular, established contact with these institutions with the expectation of availing of services in respect of training, seeking financial support, procurement of raw materials and machinery, marketing of products, etc.

2. Majority of the borrowers, i.e. 77 per cent of the total, did not receive any help in respect of procurement of raw materials and marketing. However, AIHB organised training programmes for selected artisans. Recommendations of the institutions for bank assistance were not well received by banks and hence artisans had to struggle to get bank finance on their own.

3. Small borrowers failed to form an association/cooperative society of their own and hence their problems in respect of procurement of raw materials and marketing have remained unsolved. Attempts in this direction were obstructed by power-

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V. Impact of bank finance

Data collected on the impact of bank finance on the decentralised sector are summarised in table 2:

Table 2 : Impact of bank finance

I. Investment and bank finance :		
	Period A	Period B
1. Investment (Aggregate)	Rs. 8.38 lakhs	Rs. 11.63 lakhs
—do— Fixed Assets	Rs. 4.11 lakhs	Rs. 5.35 lakhs
— Working capital	Rs. 4.27 lakhs	Rs. 6.28 lakhs
2. Investment in business per borrower	Rs. 3010	Rs. 4180
3. Bank finance raised during the period A to B (Per borrower)	—	Rs. 1560
II. Operational data (per month/per borrower)		
4. Production value	Rs. 1440	Rs. 1790
5. Net profit earned	Rs. 494	Rs. 674
6. Employment provided	Rs. 2	Rs. 2.5
7. Other income to the family	Rs. 73	Rs. 85

Period A—As on the date of application for the first bank credit

Period B—As on the date of interview with the borrower.

Observations

1. Aggregate change in the value of investment was by Rs 3.25 lakhs. The requirements of working capital had gone up, whereas the investment in fixed assets had declined slightly.

2. During the period A and B, bank borrowings per borrower had gone up by Rs 1,560, whereas increase in the investment in business per borrower was Rs 1,170 only. This suggested that bank borrowings were not fully utilised for investment in business. Nearly 25 per cent of funds received from banks were used for other than business needs such as consumption, repayment of loan from moneylenders, etc.

3. Net profit per month-per borrower increased by Rs. 180, indicating a 40 per cent rise. With the increase in production, net profit of the borrower had gone up satisfactorily.

4. The number of persons employed in business had increased slightly. It was understood that the additional employment was restricted to their family members only.

5. The increase from other sources of income was marginal.

come of the borrower should have gone up considerably. However, bank finance had not created any significant impact on this sector since the end-use of bank finance was not fully ensured.

In this context two suggestions may be made.

1. Banks have to improve their follow-up system so that they can ensure end-use of funds.

2. If the bank funds are partly used for consumption, banks have to take into account their consumption needs at the time of sanctioning the loan. The borrowers covered by the study were very poor and their consumption needs were not fully met. It seemed that atleast a part of the amount advanced to them would continue to be diverted towards consumption needs. Hence it is more appropriate to provide consumption loan separately or the requirements of consumption should be considered alongwith business needs at the time of sanction of the loan, to provide for more productive use of bank funds.

ANALYSIS OF DATA RELATING TO NON-BORROWERS

A sample of 165 non-borrowers was considered for the purpose of the study. This sample consisted of two groups, namely, retailers and self-employed, with 30 and 135 non-borrowers in each group respectively. Observations made on an analysis of the data are discussed in the following paragraphs:

1. **Size of the family:** A majority of non-borrowers had relatively larger families than the borrowers had. Nearly three-fourths of the non-borrowers had more than five members in the family. The percentage of non-borrowers, having a family size of more than five members, was almost the same in the category of retail traders and self-employed.

2. Sixtytwo out of 165 non-borrowers had work experience of more than 10 years. Although 57 per cent of non-borrowers had set up their business much earlier, they had not availed of the finance from banks.

3. In most of the cases, the income of the non-borrowers was in the range of Rs 200 to Rs 500 per month. Average monthly income of the retailers and self-employed was almost same. Considering the larger size of their family income genera-

4. As in the case of borrowers, more than half of the non-borrowers were illiterate. A very few of them had received higher education. The percentage of literates was higher in the case of retail traders than in the

Moneylenders, friends and relatives were the major sources for providing funds. Such borrowing varied from Rs 50 to Rs 1,000 per year, depending upon business and consumption needs. The rate of interest was over 24 per cent per annum, although securities in the form of gold ornaments were obtained.

case of self-employed. The educated non-borrowers were either not aware of credit facilities or not eager to borrow from banks.

5. More than 80 per cent of the non-borrowers had been operating in the same area for more than 10 years and nearly 70 per cent of them stayed near the bank's branch. This suggested that the majority of the non-borrowers knew the existence of banks in their area.

6. Nearly 64 per cent of the non-borrowers had continued the family business with traditional source of finance. This was mostly observed in the case of self-employed.

7. Over 50 per cent of the non-borrowers got credit from the suppliers of raw materials. The percentage of those availing credit on raw materials was higher in the case of non-borrowers than in the case of borrowers. This indicated that a majority of the non-borrowers required bank credit for the purchase of raw materials. It was also observed that half of them had to grant credit to customers, for which they may require bank assistance to discount bills drawn on customers. Artisans depended heavily on local merchants who provided credit for the raw materials. Local merchants had been the sole buyers of the finished products of artisans. Consequently, local merchants failed to offer better price on the finished goods, as they were monopolists for all practical purposes.

8. Moneylenders, friends and relatives were the major sources for providing funds. Such borrowing varied from Rs 50 to Rs 1,000 per year, depending upon business and consumption needs. The rate of interest was over 24 per cent per annum, although securities in the form of

were aware of the fact that skill and expertise were considered for providing loans from banks. According to them, this awareness was created due to the wide publicity and promotional work undertaken by banks.

10. More than three-fourths of them had approached banks for seeking bank credit but could not succeed in availing of the same for the following reasons:

(i) Banks insisted on individual guarantee which was difficult to arrange for the small borrowers.

(ii) Banks insisted on too many formalities to be completed for which documents such as trade licence, rent receipt, ration card, latest electricity bill, etc, were asked for. Often the small businessmen did not possess these.

(iii) Banks took more time to sanction credit and small traders could not wait.

When the above reasons are examined, it appeared that atleast some of them were not valid. Under the Differential Rate of Interest (DRI) scheme, no guarantee is insisted upon. After rationalisation of the application form, information required was reduced to the minimum. Basic information required for credit appraisal was sought by interviewing the applicant at the time of receiving application.

Thus the non-borrowers need to be properly educated about the salient features of the bank schemes. For educating the non-borrowers, banks have to take the initiative and introduce various strategies for moti-

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vating them to avail credit facilities.

11. The average business income of the non-borrowers was Rs 245 p.m. and considering the large size of the family, their existing income was inadequate. However, a majority of them, i.e. 68 per cent of the non-borrowers, were planning to expand their business, for which they were keen to borrow from banks.

12. All the non-borrowers indicated that they had no difficulties in transacting business with the

branch in the area since they stay near to it. They were prepared to open a savings bank account with a deposit of Rs 5.

Thus it is possible to bring all the non-borrowers under the banking fold if the non-borrowers are convinced of liberal credit schemes of banks and they are approached and motivated imaginatively by the banks.

ANALYSIS OF DATA RELATING TO BRANCH MANAGERS

Twentythree branch managers of different banks operating in the places from where the borrowers and non-borrowers came were contacted. Observations made after analysing the data provided by branch managers are discussed in the following paragraphs.

1. Identification of potential borrowers: Borrowers are generally identified by their self efforts and wherever the applications are recommended by the development institutions the recovery performance was not satisfactory.

2. Bank procedures: Nearly 71 per cent of the branch managers i.e. 16 out of 23 felt that the present loaning procedures need to be simplified for the benefit of borrowers. Time involved in the sanction of credit could be reduced if the applicants supply all the required information along with the application, for which applicants have to be informed about the documents to be submitted at the time of submitting the application.

3. Periodical inspection: Most of the branch managers agreed that pre-sanction inspection is necessary for making a total assessment of the applicant's business. According to them, notes prepared while interviewing the applicant would be very useful for considering the loan application. A few branch managers indicated that a separate check list had to be prepared for the periodical inspection of the business units of the small borrowers.

4. Calculation of credit needs: According to the branch managers, most of the small borrowers applied for the amount which was much more than their real credit needs. To overcome this, the applicants should be guided on the calculation of credit needs. Or, the bank staff could assist while calculating credit needs at the time of filling in the application form.

Poor recovery was partly due to the ineffective follow-up system in the banks. Each branch manager was very busy with the routine and had no time to carry out periodical inspection/field work. Borrowers also failed to provide any information about business performance unless the credit limits were to be renewed. Hence, periodical inspection of business units on a regular basis only could ensure the end-use of funds.

the growing number of rejected applications for not being eligible to borrow under the scheme, the applicants had to be explained in detail about the eligibility criteria while giving application forms. It was also necessary to indicate the time required for sanction so that they could plan their business accordingly. Efforts should be made to reduce the time involved in sanction to one week. Presently banks required a period of 2 to 3 weeks to consider the loan application and sanction the loan.

6. Bank services: Presently branch managers assisted in filling in the application form, which appeared to be the only non-credit service. However, borrowers expected guidance from banks in the areas of business location, marketing, maintenance of books of accounts and management of funds. When verified with branch managers, it was found that six out of 23 branch managers had received such requests.

7. Discretionary powers: Eight out of 23 branch managers suggested that the present discretionary powers need to be enhanced in view of the growing demand for credit facilities from small businessmen.

8. Recovery problems: A majority of the branch managers indicated that their main problem was the recovery of loans and advances. The percentage of recovery was in the range of 40 to 65, which appears to be poor. According to them, there are a good number of wilful defaulters. Poor recovery was partly due to the ineffective follow-up system in the banks. Each branch manager was very busy with the routine and had no time to carry out periodical inspection/field work. Borrowers also failed to provide any information about business performance unless

business units, on a regular basis only could ensure the end-use of funds.

It was also pointed out by the branch managers that a majority of the borrowers used a part of bank funds for consumption purposes. In this context, consumption needs of poor applicants should be considered separately and provided for by banks.

9. Branch managers expected that circulars issued by the head office should be such as could be understood. Many of the circulars issued should be sent to branches along with explanatory notes prepared by the head office.

10. **Role of development institutions:** Eighteen out of 23 branch managers mentioned that they did expect assistance from development institutions not only in the identification of potential borrowers but also in the recovery of advances. Development institutions did not consider the feasibility of the project while recommending the proposal to banks. Most of the branch managers indicated that there were no formal meetings with development institutions on a regular basis. Hence, the development of small business had been the main responsibility of banks. Branch managers felt that the present involvement of development institutions should be increased particularly for the promotion of artisans' activities.

11. A majority of the branch managers expressed the need for training on financing of small business. Training may be imparted in a seminar which may be organised by the head office, particularly in the area of advances to small borrowers. This will enable them to increase the recovery performance. They also pointed out that staff available in the branch was inadequate to ensure close supervision and follow up.

12. Branch managers were of the opinion that bank finance had not made a significant impact on small business, in raising business income, because the bank funds were not fully utilised for business purposes.

13. To overcome the problem of recovery, the local bankers association had to be strengthened to establish uniform methods of lending and resist any pressures at the time of credit appraisal and recovery of advances from local leaders.

14. Experience reveals that the recovery performance under the DRI

is rephased by extending the period of repayment beyond three years. In such cases, wherein loans are allowed to continue beyond three years, the

prime document to be obtained is acknowledgement of debt without which the debt is time barred, having no legal recourse. To seek this legal protection, branch managers have to devote a lot of time for obtaining the acknowledgement of debt document. Often the borrowers are untraceable and hence, frequent visits had to be made. Many borrowers were reluctant to sign any document subsequent to the disbursement of loan and hence they avoided branch managers who came for obtaining the acknowledgement of debt. Branch managers were of the opinion that the law of limitation act should be amended so that advances under DRI scheme were exempted from obtaining the

Since the borrowers are poor, no one would like to provide a guarantor for them. But under the DRI scheme no guarantee is insisted upon and when the needs of most of the borrowers are below Rs 2,000, the question of guarantee normally does not arise. In areas where the artisans are concentrated, a group guarantee may be obtained.

document or, the limitation period should be extended up to 10 years for advances under the DRI scheme.

SUMMARY AND CONCLUSION

Small borrowers face numerous problems and of these the non-availability of raw materials at reasonable cost and lack of marketing are crucial. Each borrower tries to solve problems on his own, but due to low purchasing power and in the absence of direct contact with the customers by artisans, the problems have remained unsolved. Artisans will continue to live at the mercy of local merchants unless some coordinated efforts are made to ease the situation. Formation of a cooperative society by the artisans is the only solution to get rid of local merchants in respect of the supply of raw materials and marketing. But this may take some time and effort. However, for a short-term solution a few suggestions are offered:

1. Whenever the raw material is controlled by the government agencies, the supply of the same should be made directly to the arti-

wood for the manufacture of lacquerware products was controlled by the forest department of the state government. During the auction arranged by the forest department the local merchants lifted the material through bidding and then supplied to artisans at high prices. In this case, the forest department can open a retail shop for artisans who can buy in small quantities. Consequently, the local merchants can be avoided in the chain of distribution of materials.

2. The government agencies, namely, All India Handloom Board (AIHB), Khadi and Village Industries Commission (KVIC), government emporia, etc, should take initiative in buying the products.

3. Efforts should be made to reduce the time taken for sanctioning of the loan. Procedures involved in the sanction should be further simplified. Banks should not insist on guarantee which is difficult for small borrowers to provide. Since the borrowers are poor, no one would like to provide a guarantor for them. But under the DRI scheme no guarantee is insisted upon and when the needs of most of the borrowers are below Rs 2,000, the question of guarantee normally does not arise. In areas where the artisans are concentrated, a group guarantee may be obtained.

4. Development institutions, particularly AIHB/KVIC/DIC, should take initiative in marketing the products of artisans. Efforts should also be made to promote the sale of handicrafts through exhibitions.

When the suggestions offered by the branch managers are examined, it appears that the bank procedures need to be further simplified. Applicants should be well informed about eligibility criteria for borrowing under the liberal credit scheme. Banks should indicate how much time is required for the sanction of loan, so that the applications may plan accordingly.

Impact of bank finance

The data further reveal that bank funds are not fully utilised for business purpose and hence have not made any significant impact on the small business units. A majority of the borrowers use a part of the bank finance for consumption purpose. Hence, it is advisable to grant consumption loans separately along with business loans. Such consumption loans should cover the requirements of consumption, and should be sanctioned on a term basis. On

working capital loans for consumption. This suggestion applies to those artisans who are very poor.

With the diversion of bank funds towards consumption needs, the recovery of bank loans is endangered. Poor recovery performance of banks has been the main problem of branch managers. To improve the recovery, banks have to be careful in the identification of borrowers. A proper identification of borrowers may re-

duce the chances of defaults. To ensure the end-use of borrowed funds effective follow-up system is essential. Branch managers are of the opinion that the law of limitation should be amended so that the requirement of acknowledgement of debt is not applicable to the advances falling under the DRI scheme or the limitation period should be extended up to 10 years for such advances.

When the reasons for not borrowing are studied, it is certain that non-borrowers have to be educated on the salient features of bank schemes, in which bank staff have to play a vital role in educating non-borrowers when they approach banks for assistance. It is essential to establish a rapport with non-borrowers and convince them on the scope of bank schemes and the desirability of availing them.

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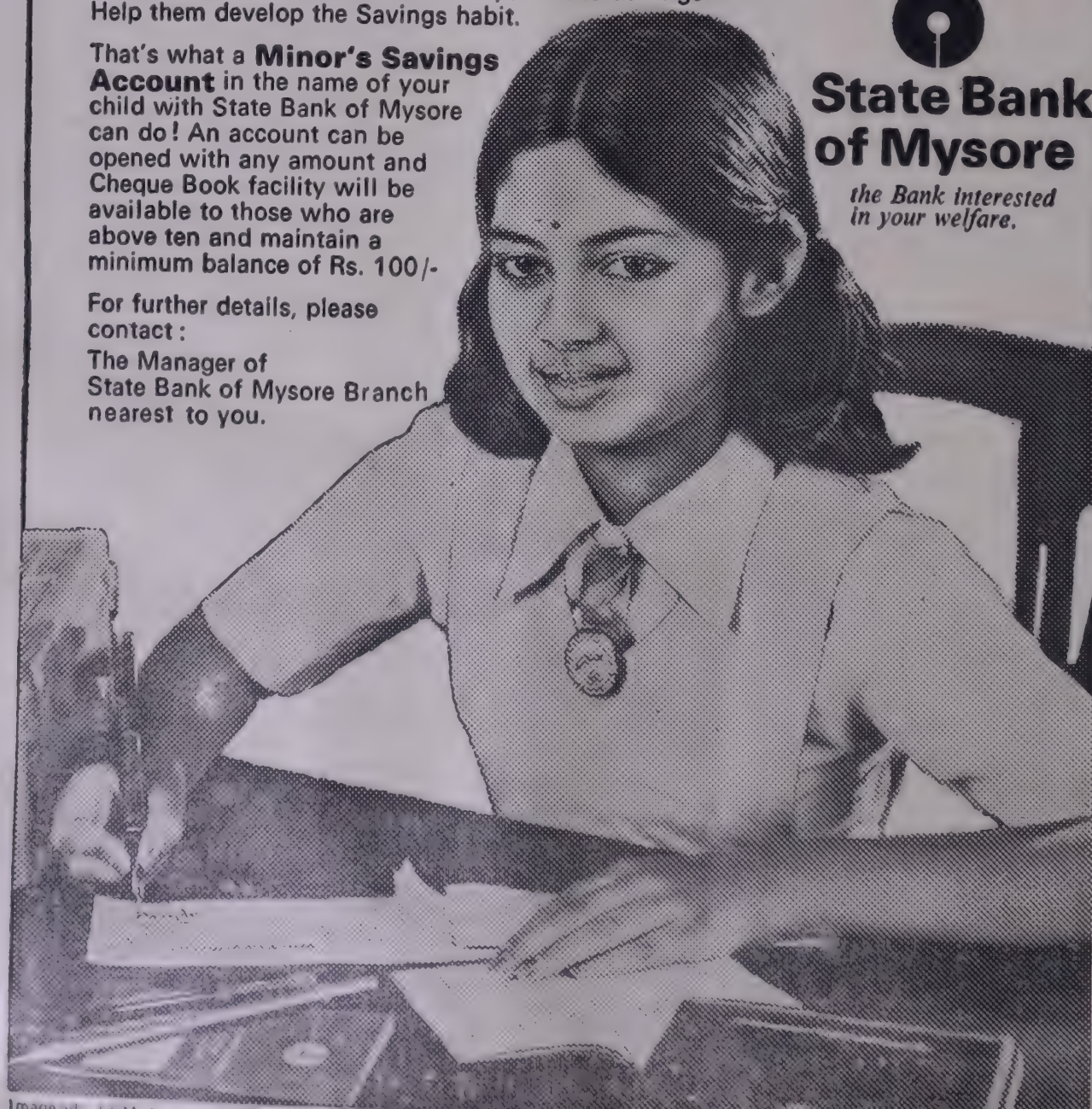
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Cooperative banks to the fore

By JOHN D'SILVA

Chairman, Greater Bombay and Thane District Urban Cooperative Banks' Association

COOPERATIVE banks have a unique role in the banking system in India. Till social control and subsequent nationalisation of 14 major commercial banks in 1969, the urban cooperative banks were the only institutions which were mainly serving the interests of the middle class and economically weaker sections of society and helping their social cause by providing financial assistance as visualised by the founding fathers of the urban cooperative banking movement.

During the decade of seventies, the banking industry, witnessed many revolutionary changes. Until a decade ago, the commercial banks, with a few exceptions, were the special preserve of the privileged class. With the nationalisation of 14 major banks in 1969, there has been a phenomenal progress in terms of geographical extension as well as financial diversification. Commercial banks, which hitherto, confined their activities mostly to urban areas have spread their operations by opening branches in semi-urban areas and rural areas with a view to fulfil the social objectives of their nationalisation. In spite of this, the urban banks have their inherent advantages on account of their constitu-

Personalised service plays an important part in building up the bank. When compared to the services rendered in commercial banks, which are headed by officers subject to transfer at regular intervals, there is a consistency in the services rendered by the urban cooperative banks, inasmuch as the officers heading them are local people having close contacts with the people residing in the area.

commercial banks has made their services, in a way, impersonalised. the urban banks continue to have certain advantages as hereunder :

1. Well defined command area,
2. Familiarity with environment/conditions obtaining in different parts of the command area.
3. Specific activities atleast in a major number of banks.

Spread of cooperative banking

The urban cooperative banks individually serve the interests of people in their area of operations. But the urban cooperative banking movement, as it is, has spread over the entire country, there being a number of banks and their branches throughout the country. It may be true that development of the urban cooperative banking movement is not uniform throughout the country and there has been rapid growth in certain states. But efforts now are being made to cover all the under-developed areas by organising new banks.

It is not enough for the present banker if he merely knows the principles of accounting and banking or commercial law. He must be a versatile man and virtually a philosopher and guide to his customers. The man at the helm of the urban cooperative banks possesses this vital qualification which endears him to his clients and in turn helps in the development of the bank.

Personalised service

Personalised service plays an important part in building up the bank. When compared to the services rendered in commercial banks which are headed by officers subject to transfer at regular intervals there is a consistency in the services rendered



Mr John D'Silva

banks inasmuch as the officers heading them are local people having close contacts with the people residing in the area. Even in metropolitan cities, urban banks having their offices in localities where the population is predominantly working class have in many cases built up a very good image on account of their accessibility to the common man and the personalised service rendered by them.

The constitution of the cooperative banks is democratic in character without any controlling interest from an outside authority. The administration is vested in an elected body. The general body, which is the supreme authority, elects the board of directors periodically by exercising one vote for one man irrespective of the shares held by him. Another peculiarity in the constitution of an urban bank is that the share-holders of the bank who are also its clients are the real masters. This keeps the employees working in the bank alert. There could be no vested interests in the management of a bank as the law restricts the period of holding of office by a particular person. The constant changes in the boards of management of the bank which is elected once in three years by the share-holders would bring in new elements keeping in consonance with the changing times and trends.

The cooperative banks are the forerunners in inculcating banking

urban and rural areas as they have been mostly started in these places. It is these banks which have developed the habit of thrift amongst men of small means. Though the bigger banks have now opened branches in semi-urban and rural areas still the cooperative banks play a dominant role in the areas in which there are functioning on account of the various advantages mentioned above. It would be of interest to note here that while the average growth rate of deposits of commercial banks ranged between 18 per cent and 21 per cent during the last two years, the growth rate of deposits of the urban cooperative banks ranged between 30 per cent and 35 per cent during the same period.

Small loans to common man

Another significant factor in the working of the cooperative banks is the service rendered by them to the common man by providing small loans, even of Rs 100. More than 50 per cent of the total borrowers have borrowed sums less than Rs 1,000. Thus, lending to small people is a tradition with the cooperative banks and not a concept.

While sustaining the interest in serving the common man, the urban banks have also diversified their activities by providing financial assistance to small scale industries, motor transport operators, etc, mostly with a view to help self-employment.

The urban cooperative banks have also introduced modern concepts in their working. A number of banks have installed accounting machines with a view to provide up to date statement of accounts to customers without delay. Some of the banks have also introduced computerisation in certain areas of work. Two of the urban banks transact foreign exchange business. Many more banks are willing to come forward to take up the business, provided the licence is issued by the Reserve Bank.

Banks for women

In cities like Bombay, Pune, Sangli, etc, separate banks have been established for women. These banks are providing small loans to their members to enable them to acquire sewing machines and to start home

The cooperative banks are the forerunners in inculcating banking habits amongst the people in semi-urban and rural areas as they have been mostly started in these places. It is these banks which have developed the habit of thrift amongst men of small means.

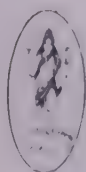
industries. A number of banks have formulated special schemes to provide financial assistance at concessional rate of interest not exceeding 4 per cent to small artisans, cobblers and others engaged in village industries with a view to fulfil the social objectives aimed at by the government under the 20 point economic programme.

Unlike the other cooperative sectors which have received attention in the Five Year Plans, the urban cooperative banks have not been assisted financially or otherwise in any way under the Five Year Plans. The success of the cooperative banks and their growth is entirely the result of voluntary work by men with missionary zeal.

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Banking : A statistical profile

By COMMERCE RESEARCH BUREAU

Table I : Selected indicators of banking development at a glance
(All commercial banks)

	End of									
	1956	1961	1969	1975	1976	1977	1978	1979	1980	1981
Banks and their branches										
Number of commercial banks	423	292	85	85*	118*	126*	125*	136*	159*	185(d)*
Number of bank offices in India	4,067	5,012	9,011	20,453	23,654	26,995	29,501	31,556	34,587	35,707(d)
Offices per million of population	10.1	11.3	17.0	34.2	38.8	50.0	45.5	48.3	50.9	52.2
Deposits										
Total deposits in India (Rs. crores)	1,159	2,012	5,173	14,669	18,427	22,453	28,368	34,174	36,900(a)	43,432(a)
Per capita deposits (Rs.)	29	46	96	268	336	410	518	623	558(a)	635(a)
Deposits as per cent of GNP	10	13	14	20	23	25	29	32	28(c)	30(c)
Credit & Investment										
Credit outstanding in India (Rs. crores)	824	1,293	3,729	10,241	13,186	14,923	18,408	21,407	24,235(b)	29,081(b)
Credit-deposit ratio (Per cent)	72	64	72	70	72	67	65	63	66	67
Investment-deposit ratio (per cent)	..	36	30	31	31	31	31	31	35	34
Earnings and Expenses										
Total earnings of banks as per cent of deposits	5.6	6.2	8.3	12.0	12.1	11.7	10.5	10.7	11.2(a)	..
Interest paid on deposits and borrowings (Rs. crores)	20.3	44.8	189.6	853.0	1,167.1	1,437.6	1,666.8	2,106.7	2,652.5(a)	..
Establishment expenses as per cent of deposits	1.9	1.8	2.7	3.3	2.6	2.5	2.3	2.4	2.7(a)	..
Employees										
Number of bank employees (in 000's)	79	115	220	392	423	473	539	566	..	..

Notes : (a) data relate to aggregate deposits of all scheduled commercial banks as on last Friday of the year.

(b) Data relate to bank credit of all scheduled commercial banks as on last Friday of the year.

(c) Estimated by the Commerce Research Bureau.

(d) As at the end of June 1981

* Includes Regional Rural Banks (..)=Not available

SOURCES : Reserve Bank of India. (i) Statistical Tables Relating to Banks in India, various issues. (ii) Banking Statistics: Basic Statistical Returns, Various issues. (iii) Report on Trend and Progress of Banking in India, various issues. (iv) Reserve Bank of India Bulletin, May 1981 and (v) Reserve Bank of India Bulletin Weekly Statistical Supplement, January 4, 1982.

Table 2: Commercial banks' branches in rural areas : 1969 to 1982

June-end	Total number of branches	Increase over the previous year		New branches opened in rural areas as per cent of total branches opened
		Total	In rural areas	
1969	8,262			
1970	10,131	1,869	1,230	66
1971	12,013	1,882	1,217	65
1972	13,622	1,609	535	33
1973	15,362	1,740	747	43
1974	16,936	1,574	604	38
1975	18,730	1,794	641	36
1976	21,220	2,490	881	35
1977	24,802	3,582	1,845	52
1978	28,016	3,214	2,270	71
1979	30,202	2,186	1,531	70
1980	32,419	2,217	1,768	80
1981	35,707	3,288	2,549	77
1982(March)	38,614	2,907	2,292	79
Total		30,352	18,110	60

SOURCES : Reserve Bank of India, (i) Report on Trend and Progress of Banking in India (various issues) (ii) Report on Currency and Finance, Vol.I, Economic Review (various issues), and (iii) Press Release July 16, 1982.

Table 3: Centre-wise distribution of branches, deposits and credit of all commercial banks

Population group	June-end 1969				March-end 1982			
	Branches	Deposits (Rs. crores)	Credit (Rs. crores)	Credit deposit ratio (Per cent)	Branches	Deposits (a) (Rs. crores)	Credit(a) (Rs. crores)	Credit deposit ratio (Per cent)
Rural	1,832 (22.4)	145 (3.1)	54 (1.5)	37.2	19,942 (51.6)	4,599 (12.4)	2,629 (10.6)	57.2
Semi-urban	3,322 (40.1)	1,024 (22.0)	407 (11.3)	39.7	8,721 (22.6)	8,598 (23.3)	4,207 (17.0)	48.9
Urban	1,447 (17.5)	1,209 (25.9)	722 (20.0)	59.7	5,320 (13.8)	9,186 (24.8)	5,486 (22.2)	59.7
Metropolitan	1,661 (20.0)	2,287 (49.0)	2,426 (67.2)	106.1	4,631 (12.0)	14,612 (39.5)	12,415 (50.2)	85.0
Total	8,262 (100.0)	4,665 (100.0)	3,609 (100.0)	77.4	38,614 (100.0)	36,995 (100.0)	24,737 (100.0)	66.9

Notes : (a) Data relate to scheduled commercial banks as at the end of December 1980

Figures in brackets indicate percentages to total

Rural : population up to 10,000

Semi-urban : population over 10,000 and up to 1,00,000

Urban : population over 1,00,000 and up to 10,00,000

Metropolitan : population over 10,00,000

SOURCES : Reserve Bank of India, (i) Report on Trend and Progress of Banking in India (various issues) (ii) Report on Currency and Finance, Vol.I, Economic Review (various issues), and (iii) Press Release July 16, 1982.

Table 4: Statewise banking facilities
(Scheduled Commercial Banks)

State/Union Territory	Bank offices* (March-end 1982)		Bank deposits (December-end 1980)				Bank credit (December-end 1980)			
	Number	Per lakh of popu- lation	Rs. crores	Per cent	Per capita (Rs.)	Per branch [Rs. lakh]	Rs. crores	Per cent	Per capita (Rs.)	Per branch (Rs. lakhs)
States										
Andhra Pradesh	2,959	5.5	1,862	5.0	346	70	1,384	5.6	257	52
Assam	555	2.8	340	0.9	169	69	156	0.6	78	32
Bihar	2,718	3.9	1,556	4.2	222	70	636	2.6	91	28
Gujarat	2,441	7.1	2,564	6.9	749	111	1,491	6.0	435	64
Haryana	868	6.7	654	1.8	506	84	469	1.9	363	60
Himachal Pradesh	403	9.5	206	0.6	484	57	69	0.3	162	19
Jammu & Kashmir	540	9.0	377	1.0	629	88	118	0.5	197	28
Karnataka	2,932	7.9	1,933	5.2	519	70	1,449	5.9	389	53
Kerala	2,415	9.5	1,455	3.9	571	63	983	4.0	385	43
Madhya Pradesh	2,431	4.6	1,172	3.2	224	57	653	2.6	125	32
Maharashtra	3,852	6.1	6,957	18.8	1,103	196	5,482	22.2	869	154
Manipur	39	2.7	16	—	113	44	6	—	35	14
Meghalaya	67	5.0	50	0.1	373	85	8	—	60	14
Nagaland	45	5.8	20	0.1	256	51	5	—	64	13
Orissa	1,202	4.6	430	1.2	163	47	254	1.0	96	28
Punjab	1,664	9.9	1,952	5.3	1,165	125	845	3.4	504	54
Rajasthan	1,760	5.1	843	2.3	246	54	569	2.3	166	36
Sikkim	7	2.2	5	—	156	500	—	—	—	—
Tamil Nadu	3,201	6.6	2,523	6.8	520	85	2,374	9.6	490	80
Tripura	86	4.2	35	0.1	170	43	18	0.1	87	22
Uttar Pradesh	4,658	4.2	3,582	9.7	321	90	1,513	6.1	136	38
West Bengal	2,420	4.4	4,136	11.2	755	191	2,501	10.1	457	116
Union Territories										
Andaman & Nicobar	12	6.3	9	—	474	75	2	—	105	17
Arunachal Pradesh	25	4.0	9	—	143	45	2	—	16	5
Chandigarh	87	18.9	267	0.7	5,804	338	579	2.4	12,587	733
Dadra & Nagar Haveli	6	6.0	1	—	96	17	1	—	96	17
Delhi	904	14.4	3,650	9.9	5,831	426	3,008	12.2	4,805	351
Goa, Daman & Diu	246	22.6	323	0.9	2,963	134	128	0.5	1,174	53
Lakshadweep	5	12.5	1	—	250	20	—	—	—	—
Mizoram	12	2.4	9	—	184	75	1	—	20	8
Pondicherry	54	8.9	58	0.2	951	116	33	0.1	541	66
All-India	38,614	5.6	36,995	100.0	538	107	24,737	100.0	360	72

Notes: * Data refer to all commercial banks (—)=Nil or negligible

SOURCES: 1. Ministry of Finance, Annual Report 1981-82

2. Question No. 2207 to the Lok Sabha on March 5, 1982

Table 5: Growth of deposits and credit of all scheduled commercial banks 1951 to 1982.

On last Friday of March	Aggregate deposits		As per cent of GNP	Bank credit	
	Rs. crores	Percentage variation		Rs. crores	Percentage variation
1951	881		9.3	547	
1956	1,043	10.6	10.1	761	22.2
1957	1,175	12.7	10.0	900	18.3
1958	1,451	23.5	12.1	963	7.0
1959	1,635	12.7	12.3	1,014	5.3
1960	1,902	16.3	13.8	1,128	11.2
1961	1,746	- 8.2	11.7	1,320	17.0
1962	1,922	10.1	12.1	1,408	6.7
1963	2,042	6.2	12.0	1,588	12.8
1964	2,285	11.9	11.7	1,816	14.4
1965	2,583	13.0	11.3	2,034	12.0
1966	2,950	14.2	12.3	2,288	12.5
1967	3,426	16.1	12.5	2,694	17.7
1968	3,856	12.6	12.0	3,033	12.6
1969	4,338	12.5	13.1	3,396	12.0
1970	5,028	15.9	13.7	3,971	16.9
1971	5,906	17.5	14.8	4,684	18.0
1972	7,106	20.3	16.4	5,263	12.4
1973	8,643	21.6	18.2	6,115	16.2
1974	10,139	17.3	17.3	7,399	21.0
1975	11,827	16.6	17.1	8,762	18.4
1976	14,155	19.7	19.2	10,877	24.1
1977	17,566	24.1	21.9	13,173	21.1
1978	22,211	26.4	24.7	15,246*	15.7
1979	27,016	21.6	27.7	18,285*	19.9
1980	31,759	17.6	29.3	21,537*	17.8
1981	37,988	19.6	30.2	25,371*	17.8
1982	43,750	15.2	31.7(a)	29,599*	16.7
Last Friday of June					
1981	40,549	21.5		26,551*	20.3
1982	45,425	17.7	12.0	29,988*	12.9
Annual rate of increase (per cent) between :					
1951 and 1969		9.2			10.8
1969 and 1982		19.5			18.1
1951 and 1982		13.4			13.7

Notes : (a) Estimated by the Commerce Research Bureau.

* Inclusive of all participation certificates.

SOURCE : Reserve Bank of India, (i) Report on Currency and Finance, various issues, (ii) Reserve Bank of India Bulletin, various issues, (iii) Reserve Bank of India Bulletin Weekly Statistical Supplement (various issues.)

Table 6: Sectoral deployment of gross bank credit

	June 1977		June 1978		June 1979		June 1980		June 1981		December 1981	
	Rs. crores	Per cent	Rs. crores	Per cent	Rs. crores	Per cent	Rs. crores	Per cent	Rs. crores	Per cent	Rs. crores	Per cent
I. Public food procurement credit	2,536	18.6	2,525	15.8	2,996	15.5	2,410	11.1	2,213	8.6	2,304	8.0
II. (a) Priority sectors	3,486	25.6	4,334	27.2	5,677	29.3	6,981	32.1	8,952	34.6	10,412	36.1
(i) Agriculture	1,381	10.2	1,726	10.8	2,288	11.8	2,915	13.4	3,779	14.6	4,530	15.7
(ii) Small-scale industries	1,460	10.7	1,756	11.0	2,252	11.6	2,715	12.5	3,400	13.1	3,832	13.3
(iii) Other priority sectors	645	4.7	852	5.3	1,137	5.9	1,351	6.2	1,773	6.9	2,050	7.1
(b) Industry (medium and large)	5,372	39.5	6,249	39.2	7,291	37.7	8,238	37.9	9,988	38.6	10,958	38.1
(c) Wholesale trade (other than food procurement)	1,053	7.8	1,424	8.9	1,612	8.3	1,835	8.4	2,008	7.8	2,163	7.5
(d) Other sectors	1,160	8.5	1,428	8.9	1,767	9.1	2,281	10.5	2,719	10.5	2,959	10.3
III. Non-food gross bank credit (a+b+c+d)	11,071	81.4	13,435	84.2	16,347	84.5	19,335	88.9	23,667	91.4	26,492	92.0
Export credit (included under item III)	1,129	9.0	1,142	7.2	1,449	7.5	1,622	7.5	1,725	6.7	1,802	6.3
IV. Gross bank credit* (I + III)	13,607	100.0	15,960	100.0	19,343	100.0	21,745	100.0	25,880	100.0	28,796	100.0

Note : *Data relate to major banks which account for about 95 per cent of gross bank credit. These data, besides taking into account the bills rediscounted with the RBI, also include bills rediscounted with the IDBI and other approved institutions and participation certificates. Percentages are as given in the original sources and may or may not add up to 100.

SOURCE : Reserve Bank of India (i) Report on Trend and Progress of Banking in India, 1979-80, (ii) Reserve Bank of India Bulletin, various issues, (iii) Reserve Bank of India Bulletin Weekly Statistical Supplement (various issues.)

Table 7 : Statewise distribution of priority sector advances of scheduled commercial banks :
December-end 1979

(Rs. lakhs)

State/Union Territory	Agriculture	Small scale industry	Other small borrowers	Total	Priority Sector advances as per cent of total bank credit
States					
Andhra Pradesh	37,210	14,223	1,696	53,129	45.7
Assam	1,851	1,592	906	4,349	33.4
Bihar	13,971	6,906	3,938	24,815	46.0
Gujarat	16,325	22,024	4,916	43,265	36.3
Haryana	13,100	10,627	1,355	25,082	68.8
Himachal Pradesh	1,043	738	443	2,224	45.7
Jammu & Kashmir	760	1,485	939	3,184	32.7
Karnataka	25,532	16,864	3,740	46,136	37.0
Kerala	12,754	10,686	2,050	25,490	32.9
Madhya Pradesh	12,899	6,988	3,369	23,256	45.7
Maharashtra	35,725	49,859	8,051	93,635	20.0
Manipur	125	37	146	308	63.1
Meghalaya	79	42	157	278	37.7
Nagaland	25	65	78	168	47.6
Orissa	5,465	2,387	1,395	9,247	49.2
Punjab	19,621	20,888	2,425	42,934	64.0
Rajasthan	11,286	6,436	1,757	19,479	41.9
Tamil Nadu	26,921	27,191	2,339	56,451	29.3
Tripura	297	92	253	642	43.9
Uttar Pradesh	32,023	22,868	5,165	60,056	46.4
West Bengal	13,617	21,225	5,410	40,252	17.6
Union Territories					
Chandigarh	1,924	1,225	444	3,593	7.1
Delhi	2,610	17,277	2,534	22,421	6.9
Others	1,788	1,552	776	4,116	28.4
Total	2,86,951	2,63,277	54,282	6,04,510	28.1

SOURCE : Reserve Bank of India, Statistical Tables Relating to Banks in India, 1979, May 1981.

Table 8 : Public sector banks' advances to priority sectors (a) : 1969 to 1980

(Rs. crores)

Advances to	Outstanding advances as on last Friday of									Increase between	
	June 1969	June 1971	June 1974	June 1975	June 1976	June 1977	June 1978	June 1979	June 1980	December 1980	June 1969 and December 1980
A. Agriculture (I+ii)	162	340	586	768	1,004	1,275	1,659	2,221	2,965	3,460	3,298
	(36.7)	(37.5)	(34.7)	(38.4)	(39.7)	(40.5)	(41.5)	(42.4)	(43.2)	(44.1)	(44.5)
(i) Direct finance	40	206	392	511	726	951	1,235	1,678	2,299	2,696	2,656
	(9.1)	(22.7)	(23.2)	(25.6)	(28.7)	(30.9)	(30.9)	(32.0)	(33.5)	(34.4)	(35.8)
(ii) Indirect finance	122	134	194	257	278	324	424	543	666	764	642
	(27.6)	(14.8)	(11.5)	(12.8)	(11.0)	(10.3)	(10.6)	(10.4)	(9.7)	(9.7)	(8.7)
B. Small-scale industries	251	442	868	943	1,099	1,315	1,644	2,061	2,635	2,962	2,711
	(56.9)	(48.7)	(51.4)	(47.2)	(43.5)	(41.8)	(41.1)	(39.4)	(38.4)	(37.7)	(36.6)
C. Other priority sectors (b)	28	125	234	288	425	556	698	951	1,268	1,431	1,403
	(6.4)	(13.8)	(13.9)	(14.4)	(16.8)	(17.7)	(17.4)	(18.4)	(18.4)	(18.2)	(18.9)
I. Total advances to priority sectors (A+B+C)	441	907	1,688	1,999	2,528	3,146	4,001	5,233	6,868	7,853	7,412
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)
II. Total advances to all sectors	3,017	4,080	6,692	7,654	9,928	11,643	13,364	16,700*	20,026*	22,236*	19,219
III. I as per cent of II	15	22	25	26	25	27	30	31	34	35	39

Notes : (a) Excludes data for six banks nationalised on April 15, 1980 for the period June 1969 to June 1979. For June and December 1980, the data are inclusive of these six banks.

(b) Include road and water transport operators, retail trade and small business, professional and self-employed persons, education and industrial estates. * Data are inclusive of all participation certificates. Figures in brackets indicate percentage share of individual sectors to total priority sector advances of public sector banks.

SOURCES : 1. Government of India, Economic Survey, various issues.

Table 9 : Lending rates of banks

(Per cent per annum)

Category of advances	Rates effective from March 2, 1981 (inclusive of interest tax)*
I. Public procurement and distribution agencies	12.50—19.50
II. Minimum lending rate (for commodities coming under selective credit control)	
(i) Commodities (except sugar)	19.50
(ii) Sugar mills in respect of all stocks	17.50
III. Exports	
(i) Pre-shipment credit	12.50—15.00
(ii) Post-shipment credit	12.50
(iii) Deferred credit for period beyond one year	8.65
(iv) Duty drawback credit scheme 1976 (up to 90 days)	Free of interest
(v) Export credit not otherwise specified	Not exceeding 17.50
IV. Agriculture (Direct finance)	
Short-term loans to farmers	
(i) Loans up to Rs. 5,000	12.50
(ii) Above Rs. 5,000 and up to Rs. 25,000	Not exceeding 15.00
(iii) Above Rs. 25,000	Not exceeding 17.50
Agriculture (Indirect finance)**	
(i) Up to Rs. 5,000	Not exceeding 10.00
(ii) Over Rs. 5,000 and up to Rs. 25,000	Not exceeding 12.50
(iii) Above Rs. 25,000	Not exceeding 15.00
V. Small-scale industry	
(i) Composite loans up to Rs. 25,000	
(a) Backward areas	10.25
(b) Other areas	12.50
(ii) Short-term advances, limits of :	
(a) Up to and inclusive of rupees two lakhs	Not exceeding 15.00
(b) Over rupees two lakhs and up to Rs. 25 lakhs	Not exceeding 17.50
(c) Above Rs. 25 lakhs	Not exceeding 19.50
VI. Other categories	
(i) DRI advances	4.00
(ii) Retail trade advances	
(a) Limits up to and inclusive of Rs. 5,000	12.50
(b) Above Rs. 5,000 and up to Rs. 25,000	Not exceeding 15.00
(c) Above Rs. 25,000	Not exceeding 19.50
(iii) Educational advances***	
(a) Indigent students for higher education in India	Not less than Bank Rate
(b) Other educational advances	15.00—17.50
(iv) Priority sectors not otherwise specified	Not exceeding 17.50
(v) All other advances	Not exceeding 19.50
VII. Term loans	
(i) Small-scale industry (new definition of SSI)	
(a) Backward areas	12.50
(b) Other areas	13.50
(ii) Agriculture (Direct finance)	
(a) Minor irrigation and land development	10.25
(b) Other Purposes	
1. Small farmers	10.25
2. Other farmers	12.50
Agriculture (Indirect finance)**	
(a) Minor irrigation and land development	8.75
(b) Diversified purposes (as defined by ARDC)	
1. Small farmers	10.25
2. Other farmers	12.50
(iii) Housing	
(a) Up to and inclusive of Rs. 5,000 to scheduled castes and scheduled tribes	4.00
(b) Others	12.50—15.00
(iv) Road transport operators	12.50—15.00
(v) All other term loans	15.00

Notes : * Inclusive of modifications/clarifications issued by the RBI subsequently.
 ** Effective June 11, 1981
 *** Effective May 19, 1981

Source : Reserve Bank of India

Table 10: Working results of scheduled commercial banks : 1979 and 1980

(Rs crores)

	State Bank group		20 Nationalised banks(a)		All public sector banks(a)		Other Indian scheduled commercial banks*		Foreign banks	
	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980
I. Total earnings	1,008.17	1,323.37	1,919.61	2,411.73	2,927.78	3,735.10	158.60	202.47	163.33	182.98
Of which :										
Interest and discount	841.89 (83.5)	1,118.10 (84.5)	1,743.67 (90.8)	2,207.58 (91.5)	2,585.56 (88.3)	3,325.68 (89.0)	140.55 (88.6)	182.39 (89.1)	128.64 (78.8)	145.97 (79.8)
II. Total expenditure	997.03	1,310.21	1,898.09	2,385.53	2,895.12	3,695.74	156.03	199.71	155.53	173.47
Of which :										
Interest paid on deposits, borrowings, etc.	622.41 (62.4)	842.16 (64.3)	1,258.78 (66.3)	1,615.79 (67.7)	1,881.19 (65.0)	2,457.95 (66.5)	90.48 (58.0)	116.64 (58.4)	70.86 (45.6)	77.94 (44.9)
Salaries, allowances, provident fund and bonus exgratia payment to staff	285.68 (28.7)	347.43 (26.5)	463.48 (24.4)	557.91 (23.4)	749.16 (25.9)	905.34 (24.5)	44.98 (28.8)	56.07 (28.1)	32.74 (21.1)	35.03 (20.2)
III Profit after provision for taxation and bonus/exgratia payment to staff	11.14	13.16	21.52	26.20	32.66	39.36	2.57	2.76	7.80	9.51

Notes : Figures in brackets indicate percentages to total earnings /expenditure

(a) Includes six banks nationalised on April 15, 1980

* Figures relate to 32 comparable Indian commercial banks in the private sector with deposits of Rs 10 crores and over as at December-end 1980

SOURCE: Reserve Bank of India, Report on Trend and Progress of Banking in India, 1980-81, November 1981

Table 11 : Statewise urban cooperative banks : June-end 1979

(Amount in Rs crores)

State/Union Territory	Number of banks	Membership (Thousands)	Paid-up capital	Working capital	Deposits	Borrowings	Loans		Overdues as per cent of loans outstanding(a)
							Outstanding	Overdue	
States									
Andhra Pradesh	133	306	3.23	31.49	17.87	0.67	19.80	3.28	16.5
Assam	7	2	0.20	4.37	3.28	—	2.44	0.06	2.4
Bihar	—	—	—	—	—	—	—	—	—
Gujarat	270	763	16.22	305.40	225.58	15.52	157.28	14.76	9.4
Haryana	1	2	0.03	0.44	0.34	—	0.12	—	—
Himachal Pradesh	11	3	0.09	0.74	0.44	0.10	0.48	0.13	27.5
Jammu & Kashmir	—	—	—	—	—	—	—	—	—
Karnataka	231	405	6.93	74.14	51.26	2.21	41.69	6.29	15.1
Kerala	68	542	2.70	40.04	26.41	1.77	19.77	2.21	11.2
Madhya Pradesh	27	98	1.66	14.14	10.48	0.22	7.30	1.69	23.2
Maharashtra	348	1,350	30.63	78.07	380.82	5.44	245.71	21.57	8.8
Manipur	1	2	0.16	1.07	0.75	—	0.40	0.10	26.1
Meghalaya	3	2	0.10	0.38	0.06	0.08	0.20	0.01	7.6
Nagaland	—	—	—	—	—	—	—	—	—
Orissa	13	52	0.51	5.40	3.64	0.28	3.12	0.78	25.0
Punjab	22	6	0.10	0.39	0.19	0.02	0.20	0.06	29.7
Rajasthan	14	21	0.47	7.05	5.42	—	3.54	0.19	5.3
Tamil Nadu	131	1,494	5.06	80.08	55.04	5.29	52.51	4.90	9.3
Tripura	1	1	0.02	0.06	0.02	0.02	0.04	—	—
Uttar Pradesh	5	2	0.10	4.64	4.24	0.01	0.27	0.05	17.1
West Bengal	118	184	1.36	17.76	13.23	0.05	8.78	1.82	20.7
Union Territories									
Andaman & Nicobar	—	—	—	—	—	—	—	—	—
Arunachal Pradesh	—	—	—	—	—	—	—	—	—
Chandigarh	—	—	—	—	—	—	—	—	—
Dadra & Nagar Haveli	—	—	—	—	—	—	—	—	—
Delhi	19	31	0.91	7.57	4.74	0.17	3.32	—	—
Goa, Daman & Diu	4	30	0.80	16.79	13.62	0.12	10.61	2.31	21.8
Lakshadweep	—	—	—	—	—	—	—	—	—
Pondicherry	1	2	0.05	0.44	0.34	—	0.27	0.05	20.1
Total	1,428	5,298	71.33	1,090.46	817.77	31.97	577.85	60.26	10.4

Notes : (a) Percentages worked out before rounding off the figures in Rs crores

(—) = Nil or negligible

Part I: Credit Societies, 1978-79

Table 12 : Statewise central cooperative banks : June-end 1979

State	Number of banks	Number of offices	Membership		Rs lakhs		
			Co-operative societies	Individuals and others	Deposits	Loans outstanding	Overdues
Andhra Pradesh	26	327	16,717	3,441	6,507	17,821	6,886
Assam	1	7	601	285	44	81	44
Bihar	28	226	23,179	2,304	2,289	6,188	5,146
Gujarat	18	717	18,630	8,963	28,932	32,636	9,158
Haryana	12	171	7,648	8	4,414	9,303	2,576
Himachal Pradesh	2	55	2,248	217	1,533	289	94
Jammu & Kashmir	3	50	2,532	252	738	822	279
Karnataka	19	472	12,281	1,215	9,174	14,193	5,649
Kerala	11	215	4,080	10	9,464	9,090	1,217
Madhya Pradesh	44	709	9,921	12,195	8,924	13,523	5,534
Maharashtra	26	1,524	34,410	23,075	38,272	40,497	15,407
Orissa	17	140	4,985	39	2,769	6,531	1,418
Punjab	17	542	16,104	11	11,813	8,840	4,234
Rajasthan	25	239	10,024	2,525	5,350	9,880	4,337
Tamil Nadu	16	372	11,820	13,409	15,869	32,812	9,023
Uttar Pradesh	56	953	15,986	2,980	16,126	21,547	9,413
West Bengal	17	171	9,798	1,501	4,647	8,708	3,108
Total	338	6,890	2,00,964	69,930	1,66,865	2,32,761	83,523

SOURCE: Reserve Bank of India, Statistical Statements Relating to the Co-operative Movement in India, 1978-79, Part I, Credit Societies, September 1981

Table 13 : State cooperative banks : June-end 1979

State/Union Territory	Number of offices	Membership		Rs. lakhs		
		Cooperative societies	Individuals and others	Deposits	Loans outstanding	Overdues
States						
Andhra Pradesh	13	26	1	6,519	11,769	845
Assam	42	1,487	1,935	3,814	2,355	1,257
Bihar	10	115	26	2,921	4,248	1,959
Gujarat	1	272	1	12,174	14,466	434
Haryana	1	26	5	3,997	5,575	144
Himachal Pradesh	38	1,285	122	1,028	539	154
Jammu & Kashmir	7	644	106	354	394	91
Karnataka	23	70	1	5,120	6,230	749
Kerala	8	11	1	3,693	3,414	12
Madhya Pradesh	15	145	65	5,181	6,834	605
Maharashtra	38	1,913	4,016	32,228	28,751	1,746
Manipur	8	1,818	171	236	317	140
Meghalaya	12	411	37	531	291	136
Nagaland	11	327	184	257	163	100
Orissa	2	69	1	2,320	4,263	2
Punjab	6	30	1	7,668	3,940	40
Rajasthan	4	151	1	3,547	5,993	450
Tamil Nadu	28	16	14,821	11,138	17,744	1,512
Tripura	16	581	13	259	231	132
Uttar Pradesh	19	64	1	13,002	16,034	206
West Bengal	29	269	1	4,509	6,894	1,518
Union Territories						
Andaman & Nicobar	9	131	1,840	57	49	17
Arunachal Pradesh	1	28	1	11	15	—
Chandigarh	3	235	179	108	51	13
Delhi	13	1,680	49	828	554	289
Goa, Daman & Diu	19	340	416	870	637	36
Pondicherry	8	173	15	271	272	92
Total	384	12,317	24,010	1,22,641	1,42,023	12,679

(—) = Nil or negligible

SOURCE: Reserve Bank of India, Statistical Statements Relating to the Co-operative Movement in India, 1978-79, Part I, Credit Societies, September 1981

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LETTERS

C.F.T.R.I. MYSORE

Wheat: Higher issue price will aid market

SIR,—The recent hike in the price of wheat by Rs 15 per quintal in the case of supplies through the public distribution system and by Rs 30 per quintal for supplies to the flour mills is once again a stiff one, in keeping with sharp hikes earlier. It will only result in an increase in the market price of wheat flour and preparations thereof. Secondly, the open market wheat prices will also go up if the past experience is any guide. In the latter event, pressure of demand for wheat supplied through the public distribution system will intensify.

The supply of wheat through the public distribution system is reported to have reached about 15 million tonnes in 1980 and a little above 13 million tonnes last year. It is not known at this stage how good the wheat crop has been in the current season, though procurement (including that of damaged wheat) is believed to have been significant. It appears that the foodgrain supply situation will not be a comfortable one in coming months, what with the delayed arrival of the monsoons and insufficient rains in many states. Thus, there is bound to be a keen pressure on the public distribution system and foodgrain prices this year. The government was understood to be carrying larger stocks of wheat as on July 1 this year, compared with those on the same date last year i.e. 10.15 million tonnes as against 7.73 million tonnes. While the increase in stocks is a welcome sign, how much of the stock is of good quality is difficult to say as the Food Corporation of India does not normally have a reputation for ensuring the quality of foodgrains supplied by it. If the quality remains far below the average, the market wheat will continue to be in greater demand and its prices firm.

Jyoti Karnik
MUMBAI

SAIL: No worry about stocks

SIR,—Steel Authority of India Ltd has closed the year 1981-82 with abnormally high stocks of over 1.1 million tonnes, of which 409,000 tonnes were at its plants and 730,000 tonnes at the stockyards. One would think that stocks of these levels were a direct result of demand recession. But it is not so. The fact is that at a time when SAIL was adding to its inventories day-by-day in view of lower offtake by consumers, the steel was reported under open general licence was lapped up eagerly by consumers since it was cheaper. Relief for SAIL came only in December last year when the Union government chose to restrict OGL imports of steel. Anyway, steel consumers seem to be well-stocked for the present and they prefer to place orders for fresh supplies only when they need them, the scarcity psychosis having disappeared in the meantime. However, SAIL need not worry about the large stocks with it. Despatches have shown a rise since June, following production fall in the first quarter (April-June) of the current fiscal year. With poor monsoons this year, power generation at hydel plants will decline in the coming months and steel plants' production is bound to suffer for want of adequate power. In that event, stocks with SAIL should start dwindling fast.

FORM 1-A

(See Rule 4A(1))

Form of general notice to be given to the Members of the public before giving a notice to the Central Government under sub-section (1) of the Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969

NOTICE

It is hereby notified for the information of the public that INDABRATOR LIMITED propose to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for proposed production, supply and distribution of new goods viz. Industrial Fans and Blowers at its Karamsad Plant in Gujarat. Brief particulars of the proposals are as under :—

- (i) Name of person/body : INDABRATOR LTD.
corporate owning the undertaking.
- (ii) Capital structure of the : Authorised Capital
applicant undertaking. Rs. 1,00,00,000/-
(As at 31 March 1981) Issued, subscribed &
Paid-up Capital
Equity Rs. 49,00,440/-
Pref. Rs. —
- (iii) Details of the proposed substantial expansion.
 - (a) Names of new goods : Industrial Fans and
to be produced, supplied, controlled or Blowers to be produced
distributed or of new at its Karamsad Plant.
services to be rendered.
 - (b) In the case of substantial expansion or existing activities :—
 - (i) Name of goods : NOT APPLICABLE
 - (ii) Capacity before : NOT APPLICABLE
expansion
 - (iii) Expansion proposed : NOT APPLICABLE
 - (iv) Location of the : NOT APPLICABLE
project for substantial expansion
 - (v) Brief outline of : The total cost of the project is 50.00 lakhs
the cost of the project, the scheme and source of finance
of finance The source of finance for import of know-how will be mainly through Internal accruals.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein

(J. R. MEHTA)
Secretary

(Name and designation of the Principal Officer of the Undertaking issuing the Notice)

Dated this Thirtieth day of July 1982

**"At the stroke of the midnight hour, when the world sleeps,
India awakes to life and freedom."**

Jawaharlal Nehru



And for Tata Steel, a new era begins.

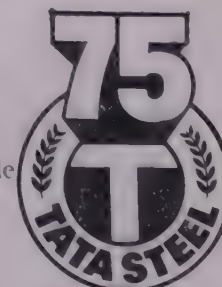
The era of modernisation and expansion. 1951: plans fructify to raise capacity to 1.3 million ingot tons. 1955: a contract of Rs 610 million is signed with Kaiser Engineers to raise capacity further. All this time, the Company's skilled manpower, experience and expertise are put at the disposal of the Government of India to launch its own steel mills.

All round the country, the clarion call of freedom was stirring the people into a new awakening. Projects were taking shape. Dams, bridges, cities and ports were coming up, harbingers of a new India. It was an awakening which Jamsetji Tata had foreseen—long ago. He knew it would happen and he knew what would be needed—steel, the life blood of industry. In the early years of Independence, all these massive projects could get underway speedily, economically, because of one man's prescience.

For he gave the country its first steel mill—nearly four decades before the country attained freedom.

And the tradition continues at Tata Steel where anticipating and pioneering have come naturally, voluntarily. Take, for example, the work done on community development, family welfare, rural development and the facilities provided for technical and other forms of training. In fact, 'everything that affects the community, every aspect of its emancipation' has been of deep interest to Tata Steel.

It is this concern for fellow men, this unflinching belief that forging men of quality must precede the making of steel that have made Tata Steel what Jamsetji Tata had meant it to be—a progressive industrial enterprise generating wealth which benefits the people, enriches the nation.



1907-1982

TATA STEEL

What benefits the people, benefits the nation.

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COMMERCE

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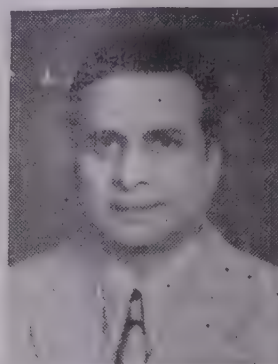
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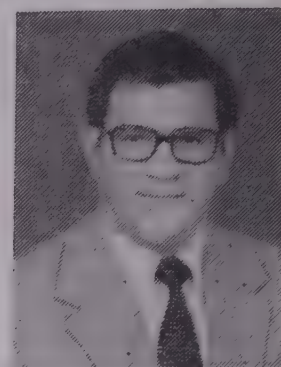
Chanda



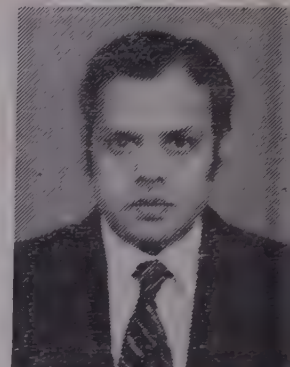
Neelakandan



Ramaniah Raja



Suresh Krishna



Lakshmanan

Mr P. C. Chanda has been elected president of the Bengal National Chamber of Commerce and Industry for the current year. A former research scholar of Berlin and Stuttgart universities, Mr Chanda had undertaken extensive practical training in the manufacture of paints in several factories in Germany and France. He started his own paint making firm in Calcutta in 1932 under the name of P. C. Chanda & Co Private Ltd. Mr Chanda is the founder-president of the Indian Paints Association and Indian Paints Research Association.

Mr K. S. Neelakandan, public relations chief of Pfizer Ltd, has been re-elected president of the Public Relations Society of India for 1982-83. Mr Neelakandan was the executive chairman of the 9th World PR Congress held in India in January this year.

Mr P. V. Ramaniah Raja has been elected president of Hindustan Chamber of Commerce, Madras, for 1982-83. He is the managing partner of Raja Ramaniah and Co and Pavani Impex.

Mr Suresh Krishna, chairman and managing director Sundram Fasteners Ltd, Madras, has been elected president of the All-India Automobile and Ancillary Industries Association.

Mr A. S. Lakshmanan, chairman and managing director Senapathy Whiteley Ltd, has been elected president of Greater Mysore Chamber of Industry (GMCI). GMCI's membership represents about 80 per cent of total capital investment and nearly 60 per cent of labour employed in the organised private sector. GMCI is affiliated to ASSOCHAM of New Delhi.

Mr S. Venkataraman of Peico Electronics is the chairman and Mr J. N. Mehrotra of Batliboi & Co the deputy chairman of the Association of Indian Engineering Industry (western region) for the current year. In this column published in Commerce dated June 5, 1982 it was wrongly mentioned that Mr N. Shenoy and Mr S. Venkataraman were elected chairman and deputy chairman of AIEI (WR). The error is regretted.

THE WEEK

There was a "blow out" of great magnitude in an oil well at Bombay High on the night of July 30. Foreign experts have been called by Oil and Natural Gas Commission to tackle the problem. (Also see page 194) ★

India and the United States have agreed on a compromise formula over the Tarapur nuclear plant under which India will receive nuclear fuel from France. ★

The Union Government has allocated Rs 40 crores for the Drought Prone Area Programme for 1982-83. ★

The Union Government is likely to decentralise the licensing of another six electronic items — small measuring equipment, pulse generators, signal generators, electronic teaching aids, audio-cassettes and security alarm systems. ★

The Reserve Bank of India has withdrawn the general permission granted to authorised foreign exchange dealers and commercial banks for opening and maintaining rupee accounts of non-resident private exchange houses in West Asia. ★

The Andhra Pradesh budget for 1982-83 presented to the state assembly on July 30 has an increased plan outlay of Rs 40 crores. ★

The Union Government has cleared a comprehensive scheme for improving the draught of the channel leading to Calcutta and Haldia ports. ★

The food subsidy will decline by Rs 35 crores against the budget estimate of Rs 700 crores in the current year because of the increase in the issue price of wheat. ★

The India-Pakistan-Bangladesh-U.K. Continental Conference has unilaterally decided to raise freight rate for tea by Rs 800 per container from August.

The Maharashtra Government is likely to get Rs 200 crores credit from the Reserve Bank of India to operate its cotton monopoly procurement scheme.

The World Bank is likely to give the Indian Railways a loan of \$700 million for the second phase of its workshop modernisation programme and traction electrification programme.

The European Economic Community has re-established customs duties on imports of shawls, scarves, mantillas, veils and similar products from India under category 84.

Wholesale price index

At 291.2, the latest available wholesale price index for all commodities for the week ended July 17, 1983 showed a rise of 0.3 per cent over the week and 1.1 per cent over the previous year.

Money easy

Conditions in the Bombay short-term money market were easy as of Monday (August 2, 1983). In the inter-bank call money section both notified and commercial funds were renewed at five per cent. Fresh money was transacted at five per cent. The market closed at five per cent.

COMMERCE

AUGUST 7, 1982

Indo-US thaw or illusion?

MEASURED against the limited objectives which the Prime Minister had set for herself, Mrs Indira Gandhi's visit to the United States has been a success. She had made it clear that the main purpose of her talks with President Reagan and her visit to the United States would be to seek a better understanding by the United States of Indian perceptions and, on her part, to better understand the United States policies. She was categorical that she would neither seek defence aid nor more economic aid from the United States. As she told press correspondents, she had largely succeeded in her aim and her talks with President Reagan and senior US officials had helped allay misconceptions about Indian non-alignment. Whether at the White House reception or the National Press Club meeting or the NBC's "Meet the Press" programme, she again and again emphasised that India's friendship with the Soviet Union was not a bar to the growth of fuller understanding with the United States and that the accent should be laid on areas of agreement between the two countries rather than on controversies or disputes or grievances.

On its part the United States also appeared to be keen on showing that the country wanted to be as friendly with India as with Pakistan despite the reservations that New Delhi has about the US policy of arming the Pakistan forces with the most modern weapons. On the day of Mrs Gandhi's arrival the American press reported that the United States had evolved a solution on fuel for Tarapur atomic plant, an issue which had developed recently into a major irritant in the Indo-US relations. Obviously, the work on such a solution had been in progress for some time but the solution itself was announced on the day of the arrival of the Prime Minister in the United States in order to create a favourable climate for the summit talks between Mrs Gandhi and President Reagan. The new agreement between the two countries provides for France supplying enriched uranium fuel to the Tarapur plant and continued surveillance by the International Atomic Energy Association (IAEA) of the Tarapur plant. As a result the Americans will not violate their 1978 nuclear non-proliferation act which demanded that fullscope safeguards should be insisted on in all the nuclear plants in which the US would supply enriched uranium fuel. It had been resisting the implementation of the full-

under IAEA surveillance and India rejected the suggestion that nuclear plants not helped by the United States should come under the US surveillance. The details of the agreement are to be worked out when the chairman of the Indian Atomic Energy Commission, Dr H. N. Sethna, visits the United States after the French Foreign Minister makes a trip to Delhi on August 7. One controversial point that still remains to be solved relates to India's right to reprocess spent fuel which the United States spokesman has said remains subject to "joint determination". Mrs Gandhi and other Indian spokesmen have made it clear that India does not accept such an interpretation. The debate will obviously continue. The reprocessing of the spent fuel is a most vital factor in India's future nuclear programme. Plutonium from the spent fuel is to be used in the breeder reactors that India plans to set up in the next decade, and it is hoped that the US will not insist on joint determination, which, in effect, amounts to a US veto on the reprocessing of the spent fuel. Mrs Gandhi meanwhile has reiterated India's commitment to the peaceful uses of nuclear energy, has categorically declared that she has no atom bomb and that she is opposed to the non-proliferation treaty only because it is discriminatory in character. For the Americans this must have sounded a welcome assurance though there is nothing new in the statements she has made during the visit.

Where obviously Mrs Gandhi has failed was in convincing President Reagan that he must have a second look at his policy in providing funds for International Development Association (IDA) and Asian Development Bank to lend soft loans to the developing countries. Here Mrs Gandhi was speaking not only for India but for the entire developing world. While Mrs Gandhi had succeeded in convincing the British Prime Minister, Mrs Margaret Thatcher in this respect, President Reagan and his aides harped on market mechanism and apparently suggested that a country like India should depend more on commercial loans. The Finance Minister, Mr Pranab Kumar Mukherjee, is due to meet Mr Donald Regan, US Treasury Secretary, to continue the debate in September but it is doubtful whether the American President will change his policy.

The more important point about Mrs Gandhi's mission to the United States is whether it has brought

an illusion. By all accounts the present visit has been a great success but time and again the relationship between the two countries has undergone such turns and twists to sour these relations that one is not sure about the future trends. Admittedly the areas of cooperation between the two countries in trade, economy, science and technology and cultural areas are vast. It is a healthy sign that the Indian Investment Centre will be activated to provide advice to potential American inves-

tors to set up industrial units in India and that scientific cooperation between the two countries is to be undertaken on a larger scale. An Indo-American Joint Business Council already functions but its success in expanding the trade between the two countries has been very limited. The two countries need to consolidate the mutual relationship in the fields of trade and joint ventures as a follow-up measure to Mrs Gandhi's talks with President Reagan.

The corrupt can now be prosecuted

THE Maharashtra Governor, Mr I. H. Latif, made constitutional history when he gave his sanction to prosecute Mr A. R. Antulay, former Chief Minister of Maharashtra, for his involvement in irregular allotment of cement to various builders of Bombay. Mr Latif's decision followed within 24 hours of the Supreme Court judgment of July 28 which directed the Maharashtra Governor to use his personal discretion and not to be guided by the Cabinet advice.

The Supreme Court dismissed a special leave petition by the State of Maharashtra challenging the Bombay High Court judgment which empowered the Governor to decide on the prosecution of Mr Antulay. This is a significant development for clean public life which is now polluted in New Delhi and in almost all state capitals by corrupt ministers and officials. The veteran Janata leader, Mr S. M. Joshi, expressed the mood of the country when he said that the Governor's decision should come as a great relief to those who were striving hard to cure the Indian public life of the disease of corruption. This should also perhaps put a halt to further deterioration of moral standards in public life. Whatever may be the fate of Mr Antulay, corrupt ministers and chief ministers throughout the country would now have sleepless nights. No more the Constitution will protect the corrupt politicians while holding power for a temporary period in a democratic society.

Although the Governor of Maharashtra is reported to have conveyed that the decision was his own and not influenced by the Central Government, it is safe to presume that the Central Government might have taken a neutral stand after the Supreme Court judgment which conferred a discretionary power on the Governor to prosecute a former chief minister. This neutrality is itself a healthy development.

The sanction for prosecuting Mr Antulay (first of its kind in India) has been accorded under section 6 of the Prosecution of Corruption Act 1947 and section 197 of the Code of Criminal Procedure 1973.

said that the sanction pertained to the donation made to various builders for the allotment of cement, one case of allocation of alcohol and the other of granting of "no objection" certificate. The Governor's decision followed an appeal by Mr Ramdas Naik, a Maharashtra BJP ML. Mrs Mrinal Gore and other opposition leaders for sanction to prosecute Mr Antulay.

It may be argued that in a parliamentary democracy the head of the state was a constitutional head and in such cases he should be guided by the advice of the council of ministers. If this system is diluted any chief minister could be prosecuted by the governor giving a sanction following a plea from a few opposition leaders or even dissidents in ruling parties. It may also be argued that this would give an undue power to the Central Government which might use the office of the Governor to prosecute non-Congress chief ministers and ministers. The simple answer to these misgivings is that only when the court upheld the charge, corrupt ministers and chief ministers would be punished. When the Governor gives such a permission, it does not amount to a dismissal of a chief minister. There is an independent court which will decide whether the charges are genuine or frivolous. The governor works only as a catalytic agent to enhance the quality of the rule of law. If a court decides that the charges against a chief minister are not sustainable, the governor's permission would not destabilise a ministry.

But today our problem is not the sense of security among non-Congress (I) chief ministers but a sense of fear among all politicians in all states and certainly in the Centre. The guilty minister would now know that he would not be provided any special privilege of exemption from the court action even when he is corrupt. The Maharashtra Governor's decision removes an anomaly which created two classes of citizens—ordinary citizens and ministers. If equality before law is the cornerstone of a free society, Mr Latif's sanction would only strengthen this principle. Mr Latif's decision should be the first article of an emerging Magna Carta.

EDITOR'S NOTEBOOK

Vadilal Dagli

Why Soviet inaction?

WHY did the Soviet Union (which espouses the cause of Arabs and Palestine Liberation Organisation (PLO) so stridently) do absolutely nothing when Israel invaded Lebanon and encircled PLO in such a way that the whole of PLO was threatened to be eliminated? Of course one can reply that when the chips are down, nobody will come to your rescue and everybody will be on his own. This is not an adequate explanation for the Soviet behaviour which has disillusioned its friends in the Third World. A well-known specialist on Soviet Union in Israel, Mrs Galia Golan, professor of Eastern European studies at the Hebrew University of Jerusalem, has written a long study on the Soviet attitude to PLO. She says that the Soviet inaction is entirely consistent with the policies of the Brezhnev regime which never wanted to get involved in any shooting war in West Asia.

She says that there is a conflict between the policy of PLO and the Soviet Union regarding the Arab-Israeli conflict: (a) the Soviet Union wants a political not a military solution, (b) the Soviet Union is opposed to international terror while PLO passionately believes in it, (c) the Soviet Union believes that the Arabs should recognise the state of Israel and not go on talking about its destruction (Indian Government please note!), (d) the Soviet Union wants to limit the Palestinian demands to only a 'mini-state' on the West Bank and Gaza strip and not a bigger state of Palestine as demanded by the Arabs and the PLO. According to this scholar, the Soviet Union also feels that it was first and foremost the Arab states which should have been expected to help PLO before any demand is made for Soviet intervention. As a matter of fact, Arab states also did absolutely nothing.

But more important than these arguments is the view of Soviet military leaders. Prof. Golan says: "It has been argued over the years that some elements of the Soviet military opposed such involvement on the grounds that it was too risky, that the Arab clients were too unstable, and that war, including confrontation with the U.S. or, at the very least, the loss of modern Soviet equipment, could be the result".

Soviet leaders, according to this scholar, are also of the view that to sup-

port non-Marxist groups like PLO will be a worthless investment over the long run. There is also the established Soviet policy of preferring only state-to-state relations. PLO with all its diplomatic status is still a conglomeration of groups but not a nation. This fact also affected the Soviet policy towards PLO.

Two standards

WHETHER it is Japan or Western European countries represented by the Common Market, they always collapse when they have to deal with the United States. Suppose Europe has raised a barrier to certain goods and if America protests it will immediately reconsider its decision. But if a country from the Third World protests it will get a lecture on free trade. The countries of South East Asia have formed an alliance which is called ASEAN. The Foreign Ministers of ASEAN recently had a meeting with the Foreign Minister of Japan. The Japanese Foreign Minister had expected that they will request for more development aid. But what he heard were complaints of a different kind and quality of discrimination altogether. ASEAN Foreign Ministers gave strong expression to their view that their representations about trade imbalances and protectionist tactics were ignored by Japan whereas similar complaints from developed countries like the USA were not. In view of the ASEAN governments there was more than a hint of discrimination based on an attitude of imperiousness and overbearance. What the ASEAN countries have been saying is this: When the rich are in trouble they help one another, but when they have to deal with the poor they turn their faces away.

Why export food?

AT a time when prices of basic necessities have been rising and some of the items of mass consumption have become scarce, it is criminal to export food-grains, spices, fruits and vegetables. Recently a Soviet trade representative disclosed in Bombay that last year food items worth Rs 500 crores were exported to the Soviet Union. Among the items that were exported were 40,000 tonnes of tinned fruits, 20,000 tonnes of spices, 42,000 tonnes of onions and 4,000 tonnes of garlic. While we must expand our

trade with industrialised countries like the Soviet Union, it should not be at the cost of the common man. At a time when the shadow of drought has fallen in some parts of the country, the Government of India still talks of exporting one million tonnes of rice!

Why punish honesty?

OUR fiscal system is so devised that it invariably punishes the efficient and the honest. An industrialist friend of mine tells me: "If I do well, run my concern efficiently and honestly and make a decent profit, the share price of my company will go up and eventually a 100 rupee share will be quoted at Rs 500. Another man who is not so efficient and particularly not worried about honesty may pilfer from the coffers of the company and his share will go down to Rs 80 from Rs 100. So the efficient man will pay wealth tax and an inefficient man will have the best of both the worlds. What is the logic behind imposing wealth tax on shares?"

Gandhi cap : An offence !

WOULD you believe that wearing of Gandhi cap is an offence in a Delhi jail? Would you believe that according to the Punjab Jail Manual, which is also applicable to Delhi, Europeans would be given special treatment in prison? We should be grateful to the BJP Member of the Rajya Sabha, Dr Bhai Mahavir, who informed the stunned Rajya Sabha that even 35 years after independence, wearing of Gandhi cap is considered an offence in the Union Territory of Delhi. When the Deputy Chairman, Mr Shyam Lal Yadav, tried to explain away this provision of the British rule by saying that although it was still a rule it was not implemented, Dr Mahavir rightly pointed out that according to this rule, wearing a Gandhi cap was still liable to "severe punishment". This is not the first time that such shameful anomalies have been pointed out. The British had made rules for drought relief in the 19th century which were still applicable after independence. I have pointed out in this column that there are some regulations as old as 150 years, but nobody has bothered to look at them. The 53-year old Punjab Jail Manual is a similar instance.

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PERSPECTIVE PLAN FOR FOODGRAINS

By PREM NARAIN, R. K. PANDEY and SHANTI SARUP

SINCE the beginning of this century up to 1950 Indian agriculture has been more or less stagnant. Only during the last 30 years or so, a beginning has been made in modernising crop and animal production in India, using improved farm technology, making available the necessary services, and instituting appropriate public policies. However, this process of modernisation has been rather slow. Simultaneously, a considerable debate has also been going on as to what constitutes the modernisation of agriculture. Should we adopt the super farm technology of the West which is essentially capital intensive and energy consuming? Or should we adopt a farm technology which is a judicious combination of intensive farming practices followed in the West with the labour intensive and small farming practices of our country?

Modernisation of agricultural production is necessary for providing food to domestic consumers and raw material to industry as well as for meeting the demands of international trade. It is also important for providing adequate income to farm producers. The decision regarding agricultural production is taken on more than 81 million landholdings in the countryside. Approximately three-fourth of the holdings are either small or marginal with limited resources. Modernising agriculture implies the use of a package of practices for crop production, husbandry, including the growth of high yielding variety (HYV) seeds, provision of chemical fertilisers, irrigation water, plant protection measures and use of agronomic practices and farm machinery. Modern agriculture also requires infrastructural support like credit, marketing, storage, transport and appropriate public policies.

Experience in agricultural planning indicates that the increase in output growth must come from higher output per unit of land. Increase in cropping intensity and yield rates are important steps towards raising output. Both these items are influenced by the availability of irrigation water. The increase in cropping intensity leads to

expansion of harvested area substantially faster than the arable area. During the mid-sixties, the introduction of HYV seeds has led to increase in yield rates. In addition to water and seeds, growth in output requires fast increases in inputs like fertilizers, pesticides and farm power.

There could be many strategies for increasing yields by the use of appropriate technology. In areas with optimum growing conditions for high yield varieties, inputs involving cash expenditure may be provided. Such areas could be termed as most favourable areas (MFA). In relatively less favourable areas, efforts could be made to get yield increases with less emphasis on cash inputs. In most seriously affected areas (MSA) where natural factors do not permit high yields, a minimum input package based on locally available resources could be used.

The production strategies are also influenced by the availability of other resources. Provision of gainful employment to the labour-force and draught animals in agriculture are also important considerations. Production strategies are linked with the extent and degree of mechanisation. The preponderance of small farms with fragmented holdings discourages mechanisation. The investment needed for procuring farm machinery is high and high skills are required for maintenance and operation of machinery. This is particularly true in rural areas, where facilities for repairing tractors and other machinery are not yet available. The high cost of energy also discourages mechanisation of agriculture. Therefore, future agricultural production will have to be based on the energy supplied mainly by human labour and draught animals. Mechanisation may supplement the power available at the farm.

Higher productivity

Agriculture in the coming years will therefore depend, for higher productivity, on the use of modern inputs, including improved seeds, irrigation water, fertilisers and pesticides. The expansion of the area

under irrigation and availability of short duration crops will lead to increase in cropping intensity, which in turn will lead to higher production without bringing additional land under cultivation, which is a very limiting factor because of pressing demands for non-agricultural uses.

There is ample scope for modernisation of land and water-based occupations to improve their productivity. The application of fertiliser is far short of the economic optimum even at the present level of technology. Only about 34 per cent of cultivable area is fertilised and about 10 per cent of the households use fertiliser, with an average fertiliser use rate as low as 78 kg per hectare. This is much below the level at present in use in USA and Japan. There is also plenty of scope for increasing the efficiency of the use of inputs both monetary as well as non-monetary.

In the context of improving productivity and increasing the per capita availability of food in future years, it is of great interest to examine whether the utilisation of resources available will be commensurate with the level of investment which the country will have to make for developing various physical and material inputs. It is well-known that even if you decide to pay the necessary costs for developing such inputs for increasing productivity, the investment will have to be greater in the future than what it is today at the current prices. This is what one calls the phenomena of the law of increasing costs. At the global level it has been estimated that to achieve a 34 per cent increase in food production from 1951 to 1966, agricultural expenditure increased yearly by 63 per cent, annual investment in nitrate fertiliser by 46 per cent, annual use of pesticides by 30 per cent. For the next 34 years, a 34 per cent increase at the global level, even greater inputs of capital resources would be required. It is, therefore, essential that we should look into the requirements for modernisation of agriculture by projecting the country's demands for crop and livestock production at a future date.

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1990 or 2000 AD and assess the capital required to achieve those targets.

The investment requirements for this purpose could be broadly grouped under crops, livestock and support for agriculture such as transport, storage, marketing, credit and processing. These have got to be estimated separately for the period from the present to 1990 or 2000 AD. This is no doubt a difficult task. As such, in this paper, we restrict ourselves to foodgrain production only and examine the capital requirements for 2000 AD only. We particularly emphasise the methodological aspects, the type of data required, the difficulties which one faces in this type of problem as well as the limitations of any study of this kind.

Methodology

India being a vast country, any assessment of the investment required for achieving the desired level of foodgrain production at a future date will vary considerably between states and regions. The technology needed for this purpose for the MFA would have to be different from that needed for MSA, because of regional imbalances in foodgrain production. Similarly, growth of population which has also to be taken into account in addition to the growth of national income, is different in urban and rural areas, there being a consistent increase in the percentage of urban population. This percentage increased from 18 per cent in 1962 to 24 per cent in 1980. As such, the first step in determining the capital requirements would be to divide the country into suitable regions depending upon agro-climatic conditions and the type of technology. It will also be necessary to do this exercise crop by crop, since there are enormous variations in the output levels of different crops.

The next step would be to determine the country's demand projections at a future date, derived from assumptions of growth in national income or gross domestic product (GDP) and initial production projections linked to demand. Subsequently, intermediate demand of seed, feed and waste is determined. The initial production levels are then checked for their feasibility in terms of resource availability at the regional level. Input requirements have to be determined and these

in the region and the technology actually applied. The technology embodied in the output also reflects the assessment of available production resources. If resource requirements exceed resource availability, an informal iterative process adjusts the production level until feasibility at the regional level is achieved. Finally complete commodity balances or supply/utilisation accounts are drawn up for the various regions which determine the consistency of the outcome at the country level.

The demand projection for food can either be made with the help of knowledge on the quantity of cereals, pulses and other foods that would satisfy an individual's minimum nutritional needs in terms of calories, proteins, etc. Or it can be based on market demand under free market conditions. In the latter case the growth of demand for food is determined mainly by population growth, the growth of per capita income and the income elasticity of demand. Such demand may also be affected by the degree of urbanisation, the distribution of income as well as real prices of food.

Rate of growth of GDP

While the rate of growth of population can be determined from current trends, there can be different parameters for determining the rate of growth of national income or GDP. In the FAO study on "Agriculture: Toward 2,000" discussed at its twelfth session held in Rome from 10th to 29th November, 1979, two sets of assumptions regarding the growth of national income for the developing countries were used. Firstly, the lower rate of growth approximated the recent trends, whereas the higher rate of growth reflected as closely as possible the views expressed up to mid-1978, in the UN Inter-Agency discussion on likely assumptions regarding the rate of growth for a new International Development Strategy. The higher rate of growth is referred to as the normative alternative or scenario.

If we adopt these two alternatives, we will have to follow different methods in the two cases. In the first case, the trends of foodgrain production would have to be determined from the past data and the same extrapolated for the year 2000 AD. Similarly, the demand and in-

have to be determined and extrapolated. By matching the supply and demand, the requirements for inputs and investments would have to be estimated and quantified. In the second case viz normative scenario, future demands generated by a higher rate of growth of income would have to be compared with the analysis of possibilities for faster production growth based on enhanced technological levels, such as exploiting the untapped farm potential in all the farming systems with the help of better research and extension efforts.

The capital requirements for the level of inputs projected at a future date so as to meet the demand from domestic production can be worked out in two ways. Firstly, one can use the approach normally adopted in perspective planning, wherein capital output ratio, which is the inverse of the coefficient of capital formation is used to estimate the investment needed to achieve a given increment in the output. The relationship between investment and incremental output, used in many growth models, is, however, a simplification of the second approach based on a production function. In the production function approach, one determines, with the help of past data, the input coefficients which go in to determine the output. Once such coefficients are determined for different inputs, one can project the output at a future date by first projecting the inputs themselves on the basis of their growth rates and then substituting them in the production function. This is the supply side of the whole problem. It would be necessary that such exercises of production function should be done for each of the different crops and for each of the different agro-climatic regions, technology and management levels. For a given such combination, a production technique stands for yield level associated with a certain combination of input factors such as types of rainfed and irrigated land, seeds, fertilisers, labour, tractors, draught animals and pesticides. The supply side is then matched with the total demand projections already determined, based on the assumed growth rates of population and income. The input requirements calculated from the production function are then converted into resource requirements, for example, total rainfed land by class, demand for labour etc. Confronting

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the resource requirements with assessments of future resource availability may reveal certain unfeasible situations. By an iterative adjustment procedure, output levels are then modified until feasibility is achieved.

FAO's study

An elaborate econometric model for the above methodology, however, does not exist. There are very few previous studies which concentrate on the difficult problem of determining the capital requirements in perspective planning. As already mentioned, this problem was discussed in the FAO publication entitled "Agriculture: Toward 2000". This report is based on a study of perspectives and policy issues of world agriculture up to the year 2000 AD, with particular reference to the developing countries. It emphasises the possibilities for acceleration of agricultural production in the developing countries, including current and capital input requirements, productivity increases and technological advancement; possible improvements in food self-sufficiency and the nutritional situation for the developing countries; agricultural trade perspectives and related policy issues including the role of developed countries; and the role of foreign assistance including food aid, in the effort of the developing countries to improve their agricultural performance. The study was built around an assumption of overall economic growth rates representing views within the UN as to likely income targets of the new International Development Strategy. Besides this elaborate study cutting across 90 developing countries as well as developed countries, similar exercises have also been made by Planning Commission, but including all sectors of the economy and for short as well as long term perspectives. The National Commission on Agriculture¹ has projected demand for foodgrain production based on certain population levels and growth rates in income. A very useful study has also been made by Sanderson and Roy (1980)² wherein various institutional factors and policies which influence foodgrain production

and distribution in India have been studied. These authors project the demand for food in India in the year 2000 AD and estimate that the incomes of the population of over one billion by that time would be over twice of what they are today.

Future demand for foodgrains

It might be apparent from the above discussion that an accurate assessment of the capital requirements for the modernisation of crop production in India would need a data base, which would not be readily available and would need conducting a series of scientifically planned random sample surveys to set it up. The demand projections for foodgrain production would need data on relative prices, growth in income, population levels, degree of self-sufficiency for given regions and trading policies between the regions. Similarly, intermediate demand of items such as seeds, feed, wastage and other industrial uses would also have to be determined regionwise. It may be mentioned in this connection that the demand for MFA areas will be altogether different from those for MSA areas, since in the former case the self-sufficiency for food production would be achieved earlier than in the latter case. If a suitable policy for supply of foodgrains from MFA areas to MSA areas is advocated, the deficiency requirements in the latter areas could be effectively met.

Theoretically, the domestic demand function on per capita basis can be written in the following form:

$$D_i = f(P_i, P_s, I, T)$$

where D_i = per capita demand for crop i
 P_i = price of crop i
 P_s = price of substitute crop/crops
 I = per capita income
 T = trend factor

The trend factor is primarily included to capture the effects of factors such as changes in consumers' preference, degree of urbanisation etc. Such demand functions require specification of the function which could be linear or log-linear etc. These have to be estimated separately for rural as well as for urban areas since the minimum nutritional requirements are different for the two areas. The income elasticities of demand for each of the crops has also to be determined. Data on consumers' expenditure such as those collected by the National Sample Survey Organisation could be one of the sources of data for determining the income elasticity of demands for various crops. The aggregate demand for the region would be obtained by taking into consideration the projected population.

Because of inherent difficulties in developing a realistic demand function, we have not attempted the exercise of estimating the demand for foodgrains at 2000 A.D. using the above procedure. Instead, we reproduce in Table-1 the demand projected by the National Commission on Agriculture as well as the one given by Sanderson & Roy (1980). The total demand includes demand for direct human consumption and requirements due to seed feed and waste.

Foodgrain production

During the First Five Year Plan the highest priority was accorded to the agricultural sector and at the end of the First Five Year Plan, actual foodgrain production was 66.1 million tonnes. The total output of foodgrains remained at the level of 78 million tonnes during 1960-61. It became 72.3 million tonnes at the end of the Third Five Year Plan.

Table-1 : Projection of total demand for foodgrains in 2000 AD

Item	National Commission on Agriculture (1976)	Sanderson & Roy (1980)
Population (million)		
Rural		
Urban	663	586
Total	273	407
Per capita annual consumption expenditure (Rs)	936	993
Rural		
Urban	647* to 861*	718**
Total demand (million tonnes)	1174* to 1550*	976**
	205 to 225	221

*Based on 1971-72 prices.

**Based on 1964-65 prices.

- 1) Government of India, National Commission on Agriculture, 1976, Part III.
- 2) Sanderson, F. H. and S. Roy, Food Trends and Prospects in India, Allied Publishers Private Limited, 1980

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period. The output at the end of the Fourth Plan period was 103.6 million tonnes while it increased to 119 million tonnes during 1977-78. In the year 1978-79, foodgrain production reached a record level of 132 million tonnes. However, in the year 1979-80, the nation faced one of the worst droughts in its history and production was reduced to 109.7 million tonnes. It was accelerated in 1980-81, and as a result the grain output reached a level of 129.9 million tonnes. The foodgrain production is likely to reach the record figure of 134 million tonnes during 1981-82.

The increase in production does not mean that the output of foodgrains has risen regularly over the period. Actually, it has been quite uneven with the regular occurrence of both peaks and troughs. The growth rate of foodgrains for the period 1960-61 to 1969-70 was 2.77 per cent per year³. During 1969-70 to 1978-79, the same was 2.74 per cent per year.

During the last 30 years, some changes in the product mix have taken place. This can be seen from Table-2.

During the year 1950-51, cereals constituted more than 83 per cent of the total foodgrains. The remaining share was of pulses. A similar situation prevailed during 1960-61 also. However, during the post-green revolution period, there was a gradual increase in the relative share of cereals. This is borne out from the figures for 1978-79 when more than 90 per cent of the foodgrains consisted of cereals alone. There have been shifts in output among cereals also. There has been a decline in the share of rice while the proportion of wheat has increased.

The total crop production is

3) Alagh, Y. K. and P. S. Sharma, Growth of Crop Production: 1960-61 to 1978-79, Indian Journal of Agricultural Economics, 1980.

mainly related to the area devoted to these crops. The area proportion devoted to total foodgrains remained almost constant ranging between 72.5 per cent to 75.6 per cent of the total area under crops. Within foodgrains, rice occupied about 22 per cent to 23 per cent of the total area during 1950-51 to 1979-80. The proportion under wheat increased during the post-green revolution period. Its share has increased from 8.5 per cent during 1960-61 to 13 per cent during 1979-80.

The proportion of cropped area devoted to foodgrains in the country during the last three decades is about three-fourths of the total. However, there has been a gradual increase in the yield rates of foodgrains during this period. During 1950-51, the yield was 522 kg per hectare. It increased to 710 kg/ha. in 1960-61. The introduction of new seeds and package of inputs during the mid-sixties resulted in a further rise in yield rate levels. It was 988 kg/ha. during 1977-78. The growth rates of area, production and yield of food crops indicate that during the post-green revolution period, the increase in foodgrain production has occurred, mainly through rise in yield. The contribution of area towards the increase has been smaller. This is evident from Table-3

Table-3 : Growth rates in area, yield and product

	1949-50 to 1964-65	1965-66 to 1978-79
Area	1.4	0.6
Yield	1.4	2.3
Production	3.0	3.4

*Source : Sixth Five Year Plan, 1980-85, p. 4.

Resource use

The important resources for agricultural production as a whole are land resources in terms of net and gross area sown, irrigation (net and gross areas and cropping inten-

sity), area under high yielding variety (HYV), total nutrients (N + P + K) consumption, use of plant protection measures and application of farm power.

Land resources: Between 1950-51 and 1955-56, the net sown area increased from 118.7 million hectares to 129.2 million hectares which amounted to a growth of 1.7 per cent per annum. However, in 1975-76, the net area sown increased to 142.2 million hectares. The rate of increase between 1970-71 to 1975-76 was much less, being 0.2 per cent per annum. This shows a limited scope for increase in the net area sown.

Considering the limited scope for increasing new areas under cultivation, the alternative lies in expanding the area through multiple cropping, by bringing about improvements in the irrigation system. The available statistics show that the gross cropped area during 1950-51 was 131.8 million hectares. During the year 1960-61, it increased to 152.7 million hectares amounting to an increase of 15.8 per cent during the ten year period. The gross cropped area increased to 175.5 million hectares during the year 1979-80. Thus, there has been an increase of 33 per cent during the last three decades.

Irrigation: Irrigation water is one of the most important inputs for crops. Assured irrigation water is one of the main preconditions for modern agriculture. Further advances in double cropping and crop yields require a substantial increase in water supplies. It is important to point out that the nation has a great potential to raise water supplies to agriculture. In 1972, the irrigation commission estimated the ultimate irrigation potential at 81.7 million hectares with the relative contribution of surface and groundwater irrigation at 59.5 and 22.2 million hectares respectively.

During 1950-51 to 1975-76, the net irrigated area increased from 20.9 million hectares to 34.5 million hectares. Approximately 40 per cent of the increase (5.6 million hectares) was through major public irrigation systems, while the rest is attributable to minor irrigation. The average annual rate of growth over the period was about 2 per cent.

The gross irrigated area in 1962-63 was 29.5 million hectares. There has been gradual increase in

Table-2 : Percentage contribution of different crops to total foodgrains production

Year	Rice	Wheat	Total cereals	Pulses
1950-51	40.5	12.7	83.6	16.4
1955-56	41.1	13.0	83.5	16.5
1960-61	42.2	13.4	84.5	15.5
1965-66	42.4	14.3	86.3	13.7
1970-71	38.9	22.0	89.1	10.9
1975-76	40.3	23.8	89.2	10.8
1978-79	40.8	26.9	90.8	9.2

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the gross irrigated area since then. After a decade, during 1972-73, it increased to 40.8 million hectares and to 50 million hectares in 1979-80. In general, the cropping intensity is higher on irrigated lands. As the irrigation facilities increase, the cropping intensity also increases. During the period 1950-51 to 1975-76, the cropping intensity increased from 111 to 120.

Area under high yielding varieties: In the mid-sixties, the new high yielding variety seeds responsive to high doses of fertiliser were introduced. For crops such as wheat, maize and cotton, the adoption of HYV seeds was quite fast. With a modest beginning of 1.9 million hectares in 1966-67, the area under HYV increased to 15.4 million hectares in 1970-71. Further, this area got doubled by 1975-76. At present, the area under HYV is 38.4 million hectares (1979-80).

Fertilisers: Fertilisers have played an increasingly important role in the last three decades in increasing agricultural production. The level of fertiliser consumption is universally accepted today as a fairly reliable index of the level of modernisation of agriculture. The total nutrient consumption per gross cropped area has increased from 11.29 kg/ha. in 1969-70 to 30.5 kg/ha. in 1979-80. There is, however, a considerable regional variation in the application and level of fertiliser use. For example, in Punjab, the consumption is highest (107 kg/ha.) and in Assam, it is lowest (2.1 kg/ha.).

Farm power: The power required to operate implements and tools for crop production comprise three major types, namely human labour, draught animals and machine power. The precise requirements of power for a getting satisfactory level of production varies from region to region, depending on factors like climate, soil and other endowments. According to an FAO study, "Power requirements will rise proportionately with expansion of harvested area and generally by 0.2-0.7 per cent per 1.0 per cent rise in yield rate. However, 3.6 per cent overall annual growth rate in total production results in an increase of 2.4 per cent a year in total farm power". According to the National Commission

on Agriculture, the average farm power availability in the country from all sources was 0.36 horse power (hp) per hectare in 1971. More than 62 per cent of it was contributed by human labour and draught animals, and the remaining 38 per cent by farm machinery. Moreover, nearly 86 per cent of the districts had a power availability of less than 0.40 hp/ha. There were only 20 districts which had power availability of 0.80 hp/ha. or more. The Commission further observed that the machine power was below 0.20 hp/ha. in 79 per cent of the districts.

Growth rates and future resource use

Future foodgrain production will be determined by the future technological developments, resource availability and the prevailing institutional framework including price policy etc. Studies have indicated that there is adequate untapped production potential in all farming systems. The levels of yield rates in national averages for cereals during 1974-75 to 1977-78 are presented in Table-4. It can be seen from this table that the untapped potential is very high and varies between 61 to 83 per cent for different crops.

Table-4 : Yield levels obtained in national demonstration as against national average (averaged over 1974-75 to 1977-78)

Crop	National demonstration average (Q/ha.)	National average (Q/ha.)	Untapped yield potential (%)
Rice (unhusked)	50.73	17.50	65.5
Wheat	35.51	14.03	60.5
Maize	33.59	10.58	68.5
Jowar	39.40	6.59	83.3
Bajra	24.35	4.36	82.1
Ragi	29.71	9.61	67.7

Table-5 : Growth rates for input factors and foodgrain production

Variables	1966-67 to 1979-80		1970-71 to 1979-80	
	Linear (%)	Compound (%)	Linear (%)	Compound (%)
Factors of production				
(i) Total nutrients (N+P+K) consumption	19.34**	10.76**	12.75**	9.55*
(ii) Gross cropped area	0.74**	0.72**	0.76**	0.74n.s.
(iii) Gross area under HYV	53.09**	20.65**	15.30**	11.16**
(iv) Gross irrigated area	4.73**	3.86**	4.47**	3.95**
Foodgrain production				
(i) Total	3.42**	2.92**	2.22n.s.	2.03n
(a) Cereal	3.62**	3.08**	2.55*	2.33*
(b) Pulses	0.43n.s.	0.40n.s.	-0.18n.s.	-0.34n

** denotes significance at 1 per cent level

* denotes significance at 5 per cent level

n.s. denotes not significant.

These potentials could be utilised for raising foodgrain production to a great extent. The output of wheat and rice can be raised about 250 to 300 per cent by using the appropriate input mix.

The main areas of decision influencing the choice of strategy for future foodgrain production are:

(i) Intensification of land use in terms of cropped area.

(ii) Irrigation developments and expansion of irrigated area.

(iii) Fertiliser use in terms of total nutrients consumption.

(iv) Area under high yielding varieties.

The annual growth rates of the above resource use factors have been estimated with the help of the data for the years 1966-67 to 1979-80 and also for the years 1970-71 to 1979-80 by taking time trend as the independent variable and index number of input factor as the dependent variable. The average value for the first three years was taken as the base value. The growth rates for foodgrain production have also been estimated similarly. Both linear and log-linear models were estimated for this purpose. The results are presented in Table-5.



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Taking the period 1970-71 to 1979-80 and assuming the continuation of the present linear growth rates for the future, the various input factors have been projected for 2000 A.D. as shown in Table-6 below :

Estimated production functions

Theoretically, the production function relating the output with the various input factors can be written as :

$$Y = f(x_1, x_2, x_3, x_4, x_5, x_6)$$

where Y = total foodgrain production (million tonnes),

x_1 = total nutrients (N + P + K) consumption (000 tonnes),

x_2 = gross cropped area (million hectares),

x_3 = area under HYV (million hectares),

x_4 = gross irrigated area (million hectares),

x_5 = 1, if favourable weather and 0 otherwise,

x_6 = Time trend.

Assuming a linear relationship between the variables, we get

$$Y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6$$

where a is the intercept and b's are partial regression coefficients corresponding to the various inputs. These

coefficients give a measure of response of the input on the total foodgrain production and indicate the relative importance of the input factors to the total output. For a proper interpretation of results, we should have some hypotheses about the signs of these coefficients based on economic considerations. In this case, obviously, all the coefficients should have positive signs. But because of high correlation between some of the explanatory variables, problems due to multicollinearity do arise leading to inconsistent coefficient and large standard errors. It is, therefore, necessary to estimate production function by taking individual inputs as well.

The various estimated production functions based on time-series data for 1962-63 to 1979-80 are presented in Table-7 along with the corresponding R^2 values. It may be seen from the results when single individual inputs are considered that the regression coefficients are all positive and highly significant but the corresponding R^2 values range between 0.75 to 0.83. When all the input variables are taken, the R^2 values go up to 0.97, though some of the coefficients change sign because of the reasons mentioned above.

Using the production function involving all the variables, the foodgrain output was projected by substituting the projected values of input use for the year 2000 AD. It is found to be about 198 million tonnes. This output projection has been made on the assumption that the current level of technology will continue.

Input requirements

It is evident from the earlier discussion that the level of foodgrain production in 2000 AD is 198 million tonnes which is less than the total demand of 205 to 225 million tonnes as projected by the National Commission on Agriculture (1976) as well as 221 million tonnes as projected by Sanderson and Roy (1980), given in Table-1. This means the input levels projected for 2000 AD (alternative I) and used in the production function to estimate the projected output are short of the levels required for balancing the demand and supply positions. For bridging this gap in input levels, we have to look for possible ways of expanding resources. The scope of increasing the area under cultivation or irrigation is limited because of high costs associated with developing these inputs. Therefore, the obvious choice lies with the expansion of resources like fertilisers and area under high yielding varieties. We may, therefore, increase the resource base involving fertiliser consumption and area under high yielding varieties in such a manner that it would result in the desired level of output when these are substituted in the production function. This exercise has been done by increasing fertiliser consumption as well as the gross area under high yielding varieties by 10 per cent (alternative II) and 20 per cent (alternative III) each keeping the other variables at the same level. The results are presented in Table-8.

It is apparent from this table that by increasing the fertiliser consumption and area under high yielding varieties by 10 per cent each, the total foodgrain production increases to 209 million tonnes which just meets the total demand of 205 to 225 million tonnes as projected by the National Commission on Agriculture. It is also seen that by increasing the fertiliser consumption and area under high yielding varieties by 20 per cent each, the foodgrain production is projected to be 221 million tonnes, which is more than the total demand of 205 to 225 million tonnes.

Table-6 : Projections of input factors at 2000 AD

Items	1980	Projections for 2000 AD
Total Nutrients consumption (M.T.)	5.26	11.40
Gross cropped area (M.H.)	175.50	199.48
Gross area under HYV (M.H.)	38.40	99.09
Gross irrigated area (M.H.)	50.00	88.26

M.T. = million tonnes.

Table-7 : Estimated production function for all India foodgrain production (Y) and associated input factors (1962-63 to 1979-80)

Sl. No	Intercept	x_1	x_2	x_3	x_4	x_5	x_6	R^2
1.	75.556	0.010 ^{**} (0.001)	—	—	—	—	—	0.75
2.	-306.373	—	2.470 ^{**} (0.279)	—	—	—	—	0.83
3.	80.297	—	—	1.032 ^{**} (0.124)	—	—	—	0.81
4.	24.996	—	—	—	1.894 ^{**}	—	—	0.75
5.	39.879	0.001 (0.004)	0.406 (0.512)	1.003 (0.441)	-1.266 (1.859)	12.851 (2.790)	1.705 (1.962)	0.97

Note : Figures in parentheses indicate the standard errors.

* Significant at 5% level.

** Significant at 1% level.

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up to 220 million tonnes which just matches the total demand projected by both the sources referred to above. We may, therefore, choose the levels of inputs given under alternative III (Table-8) as the desired input requirements for meeting the domestic demand projected at 2000 AD.

Investment requirements

In order to develop the resource base for the III alternative of input use given in Table-8, we have to calculate the investment that would be required for seeds, fertilisers, irrigation, land development, soil and water conservation, mechanisation, plant protection measures etc. This involves working out of the capital outlays and annual costs for major investment items such as land and irrigation development including soil and water conservation, mechanisation in terms of tractors and other farm machinery as well as working capital requirements on items of production such as seeds, fertilisers, pesticides, irrigation charges, maintenance and operation of machineries, etc.

The investments in the form of working capital, based on the chosen levels of inputs for the year 2000 AD are worked out for seeds, chemical, fertilisers, irrigation charges and on the operation and maintenance of tractors. The results are presented in Table-9. The annual working capital for foodgrain production in 2000 AD is estimated as Rs 4,068 crores at 1979-80 prices.

The annual costs for irrigation development consist of interest on capital, depreciation and maintenance costs. These costs are Rs 2,206 and Rs 445 per hectare basis for major and minor irrigation works respectively at 1979-80 prices. The total expenditure would be Rs 6,757 crores. Based on Sixth Plan data, the annual investments in soil and

water conservation programmes in terms of interest, depreciation and operating costs would be Rs 152 on per hectare basis on 1979-80 prices. For bringing an additional area of 20 million hectares under this programme by 2000 AD, the total annual investment would be to the

Table-9 : Working capital requirement for agriculture production in India in 2000 AD

Sl. No.	Items	Capital requirements (Rs. in crores)
1.	Seeds	3,192
2.	Chemical fertilisers	6,088
3.	Tractorisation (operation & maintenance only)	684
4.	Irrigation charges	883
Total annual cost :		10,847
Working capital (50% of total)		5,424
Working capital for foodgrain production (3/4 of the total)		4,068

Basis of computation

Seeds : The seed requirement has been estimated at the rate of 50 kg/ha and the proportion of area under HYV seeds has been assumed at 60 per cent of the gross cropped area. Seed prices calculated at Rs 2,000 per tonne for traditional and Rs 4,000 per tonne for hybrid seeds.

Fertilisers : Total nutrients consumption has been assumed in the proportion of 7N : 2P : 1K. Capital requirement has been calculated at Rs 4500, Rs 5500 and Rs 2,000 per tonne of N, P and K respectively.

Tractorisation : Repairs, maintenance (15 per cent) and fuel charges (6 per cent) of the cost of a tractor have been assumed as annual expenditure.

Irrigation : Expenditure on irrigation has been assumed at the rate of Rs 100 per gross hectare.

tune of Rs 304 crores at current prices. The annual expenditure on per tractor basis comes to Rs 8,350. Thus, the annual expenditure on tractors would be Rs 167 crores by the end of 2000 AD at current prices.

The total annual expenditure on items mentioned above is given below in Table-10.

Table-10 : Annual investment for agricultural production at 2000 AD

Items	Amount (Rs. crores)
1. Irrigation development	6,757
2. Soil and water conservation	304
3. Tractorisation	167
4. Working capital	5,424
Total investment :	12,652
Investment for foodgrain production (3/4 of the total)	9,498

Basis of computation

Irrigation development : For major and minor irrigation, the annual depreciation rates are 2 per cent and 6.7 per cent respectively. The rate of interest is 10 per cent. Operation and maintenance cost is 3 per cent of the investment cost.

Soil and water conservation : The depreciation, interest and maintenance costs are taken at 10 per cent, 10 per cent and 5 per cent of the investment cost respectively.

Tractorisation : The life of a tractor is assumed to be 15 years and the interest is taken at the rate of 10 per cent.

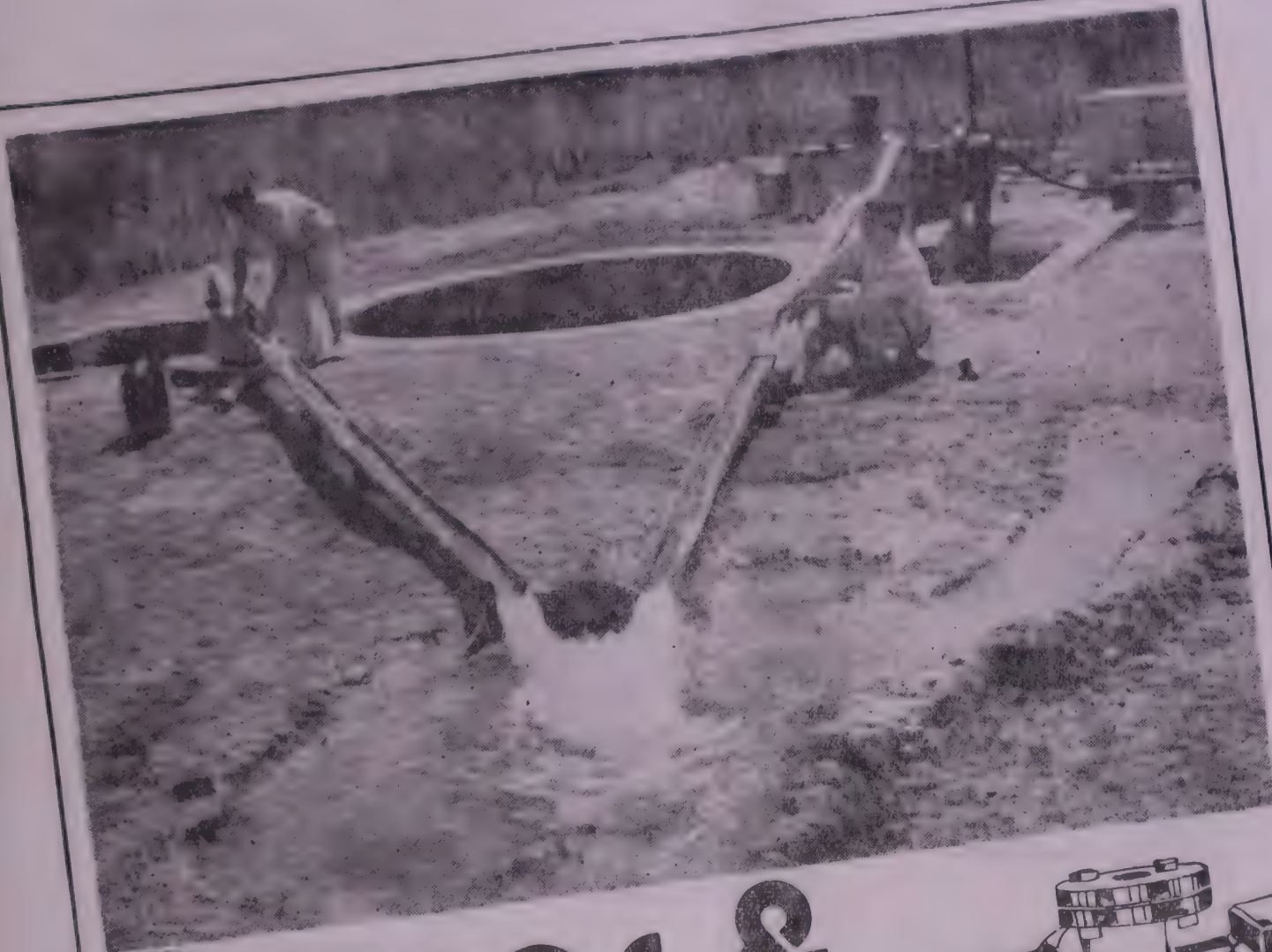
Working capital : Presented in Table-9.

The capital outlay on developing irrigation resources vary widely. They tend to be large for major irrigation projects involving high dams and long distance canals and less for improving existing systems and for minor irrigation works. Based on Sixth Plan expenditure, the capital outlay on per gross hectare through major irrigation is Rs 14,716 while that for minor irrigation is Rs 2,263. The capital outlay on soil and water conservation on the basis of public expenditure data in the Sixth Plan is Rs 611 per hectare. The approximate capital expenditure by 2000 AD would, therefore, be Rs 1,22 crores for bringing an additional area of 20 million hectares under irrigation. If mechanisation continues at its present rate, the capital requirements for tractors alone by 2000 AD would be Rs 1,033 crores. The outlay required for other machinery as well as draught animals has not been taken into account. A large sum is also required for this purpose. The capital outlay for modernisation of agriculture by 2000 AD is given below in Table-11.

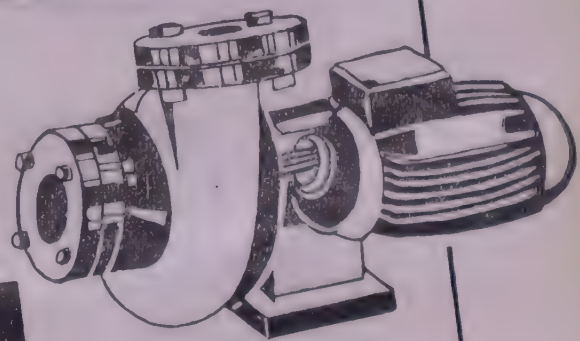
Besides investment in physical facilities and provision of working capital as given above, future growth in agriculture also depends on investments in agricultural research and education, development of markets and land reforms, etc. The total outlay during the Sixth Plan

Table-8 : Alternative levels of input use for foodgrain production at 2000 AD

Items	Present level 1979-80	Alternate levels at 2000 AD		
		I	II	III
Factors of production				
Total nutrients (N+P+K) consumption (M.T.)	5.26	11.40	12.54	13.68
Gross cropped area (M.H.)	175.50	199.48	199.48	199.48
Gross area under HYV (M.H.)	38.40	99.09	109.00	118.91
Gross irrigated area (M.H.)	50.00	88.27	88.27	88.27
Foodgrain production (M.T.)	108.90	197.55	208.64	219.72



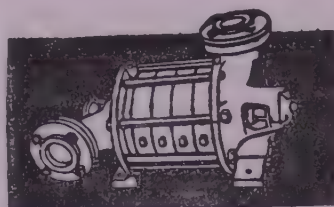
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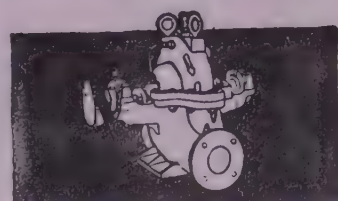
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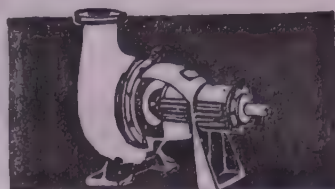
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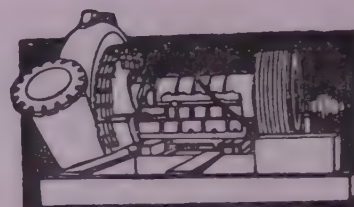
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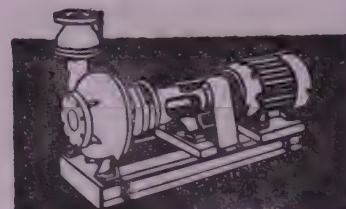
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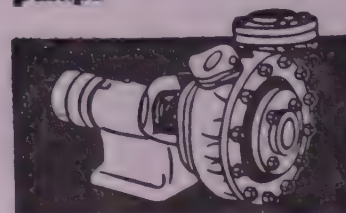
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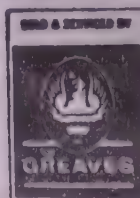


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Role of pump industry in energy conservation

By S. M. KHANDEKAR

President, Indian Pump Manufacturers Association.

LATELY, the pump industry in India is the target of sustained criticism for frittering away the precious energy resources in the country. This is for the agricultural sector of the economy where there is a population of around seven million pumpsets. Every year around 400,000 additional agricultural pump sets are being installed all round the country. Approximately 60 per cent of these pump sets are operating with electrical motors and the balance with diesel engines.

Studies carried out by government and independent bodies have shown that almost 80 per cent of these pump sets are operating at very low efficiencies, as low as 30 per cent. If all these pump sets were to operate at say 60 per cent efficiency, this itself will mean a saving of almost Rs 5,000 million per annum. **Prima-facie**, with so many inefficient pump sets operating in the field, the pump industry will always look like a villain. But, is it really the case? Or, is there some thing more to it which makes a scape-goat of the entire pump industry? I wish to take up these issues in this article in its true perspective.

Modest beginning

When the pump industry in India made a modest beginning way back in 1920's, there were only four manufacturers of pumps. Today, there are more than 450 pump manufacturers of which only 51 represent the organised sector, the units which are registered with the Directorate General of Technical Development (DGTD). The Indian Pump Manufacturers Association (IPMA), has a membership of 95 which represent almost 85 per cent of the total production of pumps in the country in terms of value. The Indian pump industry over the years has shown a remarkable progress so much so that manufacturers are capable of making different types of pumps for all possible applications. While it can be expected that the pump manufacturers from the organised sector will make

confidently about the un-organised sector. Unfortunately, the government policy has indirectly helped these small scale pump manufacturers. To be very frank, if anybody is to be blamed for the loss of our precious energy resources, only the government and its various agencies will deserve this credit. Let me explain.

Buying process

What is the buying process for these 400,000 agricultural pump sets every year? It will be seen that almost 80 per cent pump sets are bought by the farmers against government loans and/or through subsidies. These subsidies are made available through land development banks, marketing federations and few other agencies. What are the criterions used for recommending a pumpset by these agencies? It is a pity that even after 35 years of independence, territorial considerations and pricing aspects alone are given more weightage than quality. Nobody will deny that local industries should be given preference. Pricing aspect also should govern the buying decisions. But, should it be at the cost of quality? Unfortunately, this is what is happening.

Low quality pumpsets are procured or recommended by these government agencies which are not only inefficient but have high rates of breakdowns. If only certain minimum performance standards can be set before taking a buying decision, perhaps, the problems could be considerably reduced. Does the farmer benefit by buying a cheaper but low quality pumpset? This too is not possible. Not only he is consuming more energy thereby and contributing to the national loss but with frequent breakdowns and poor after-sales service, he is not in a position to give even the desired agricultural output. Thus, the country has to suffer a dual loss. Because of such black sheep who are neither capable of manufacturing quality pumpsets nor have the desire to do so, the entire pump industry gets branded. There are several pump manu-

conscious efforts to keep the efficiency and quality of the pumpsets at the highest possible level. Unfortunately, their sales are declining every year as they just cannot supply cheaper pumpsets.

Unorganised sector

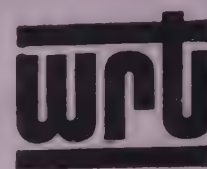
The supporters of unorganised sector try to raise another bogey that of the ISI mark. They claim that these pumps are manufactured as per the Indian Standard and therefore should be acceptable. Now this is only half the truth. What does ISI specify? The ISI only specifies minimum operating standards and seldom specifies the performance standards. For example, if you take a diesel engine, the ISI earlier had not specified the amount of fuel consumption which the engine should have. It was only when there was such a hue and cry about energy conservation that the ISI recommended the minimum performance standard. It is now similarly applied to the pumps. However, the limits of minimum efficiencies prescribed by the ISI are considerably low and it may not satisfy the protagonists of energy conservation. The difference between the highest efficiency of that of the best pumpset available in India today and as specified by ISI is as much as 20 per cent.

The two points which I have covered so far namely, the local procurement and performance to low price pumpsets is within the purview of the state government and its various agencies, (like Markefed Agro Industries Corporation). And if they decide to make ISI as an accessory, they will be still ending with inefficient and more power consuming pumpsets. The pump industry on the whole cannot be totally condemned for this in matters of policy on which they do not have much control.

Pumping system

There is one more area of installing a pumpset which, if it is overlooked, may contribute to energy losses. When we think in terms of energy

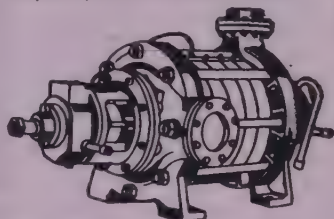
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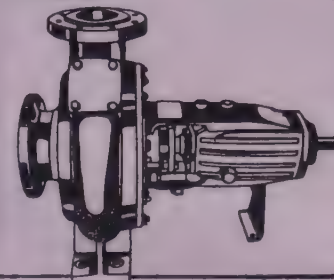
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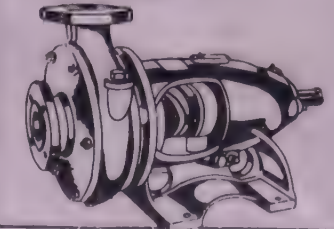
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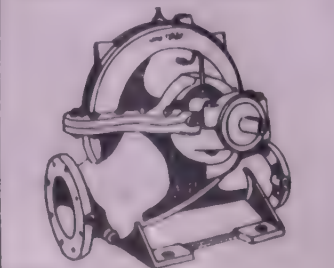
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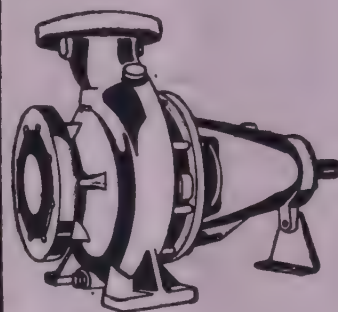
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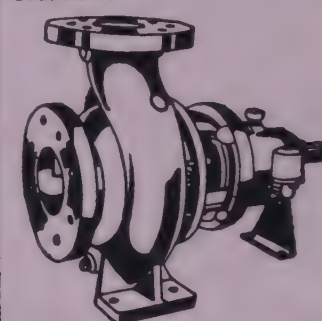


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pumping system as a whole. A total pumping system with a pump of high efficiency may be less efficient than another system with a pump of lower efficiency if the other members of the system in the first case have poor efficiencies or are mismatched with the pump and each other.

For example consider the foot value. A 80mm foot valve is available in the market at a price ranging from Rs 15 to Rs 90, a very small fraction of the price of the pumpset. The head loss in a foot valve is given by the equation :

$$H_f = \frac{KV^2}{2g}$$

where H_f is the head loss in metres, V the velocity of the liquid of the gravitational constant (9.81 m/sec/sec) and K a coefficient characteristic of the foot valve design. The value of K varies from 13 to 0.2 from foot valve design to design. Assuming a valve of 2 which is normal for a foot valve of average design, the saving in energy costs per annum by using a better value with a coefficient as low as 0.2 would be to the tune of Rs 89.82/- These figures are given in Table 1.

Table 1: Energy savings with quality foot-valves

Foot valve (Size 80mm, flow rate 20 L/S)	A	B
K	0.2	2.0
Head loss (mtrs)	0.55	5.5
Loss in power (kw)	0.10945	1.09450
Loss per day (kwh)	0.8756	8.7560
Loss per month (kwh)	26.268	262.680
Cost per month (Rs)	9.98	99.80
Saving per month (Rs)	89.82	

Notes: Assumptions—Cost of power 0.38 paise per kwh, Running days 30 per month, 8 hrs/day, price approx. of low quality foot valve. Rs 45/- of high quality foot valve Rs 90/-.

Similarly if one considers the piping and studies the losses which are dependent on its size, length and material for an efficient VS an inefficient system, for the former, there could be considerable savings.

An illiterate farmer is not expected to install the pumpset correctly, operate it properly with all due care

advised by the pump manufacturer and take care of other troubles unless he is properly trained. A few manufacturers who have the machinery to provide this training in the larger interest do so. However, a majority ignores this. It is possible for the government with its different agencies and large manpower to offer these services. Without doing this, they rather choose to criticise the entire pump industry.

Seminars

The IPMA is giving a considerable emphasis on this subject. They have conducted several seminars all around the country, quite a few in regional languages on 'the efficient pumping system'. This also includes educating the farmer in efficient operation and maintenance of the pump sets. If this does not happen, even the best pump in the hand of a negligent farmer would be useless. Mention also must be made of an excellent film produced by the Petroleum Conservation Association. **Pump chaloa, indhan bachao.** (पंप चलाओ, इंधन बचाओ) which more or less covers these points.

In order to bring home the truth, I am giving in Table 2 the operations of two different pumpsets of same size with different efficiencies. The comparison will reveal the loss with an inefficient pumpset. I have no intention here to go into too many technical details to prove my points.

In conclusion, I would like to state that no purpose will be served in passing the buck. The pump industry and its constituents are equally concerned about the energy conservation as are others. If they get proper support from the government agencies in developing the right kind of spirit and policies, needless to say that not only they will be mutually beneficial, in the longer run, they are bound to serve the national interests too.

Table 2: Energy saving with an efficient pumpset

Pump (Size 65 X 80mm Discharge 16 L/S)	A	B
Efficiency	79%	59%
Power taken (kw)	3.425	4.580
Power per day (kwh)	27.4	36.7
Power per year (kwh)	7398	9909
Cost of power per year (Rs)	2810	3765
Nett saving per year (Rs.)	955	

Notes:

Price approx. of Pump A .. Rs 710/-
Price approx of Pump B .. Rs 430/-
Assumptions—Working 270 days/year, 8 hours a day 1 kwh power cost Rs 0.38

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Development of the use of solar energy for lift irrigation in small farms in India

By D. M. UMRIGAR

THE necessity to conserve existing conventional sources of energy i.e. oil, coal etc was really brought home to the world after the oil crisis developed in 1973. This realisation not only made people think in terms of reducing the use and eliminate wastages of energy available from fast dwindling conventional sources, but it led to the increased attempts to look for alternative energy sources as well.

It is estimated that at present there are about 5 to 6 million small size centrifugal pumping sets in operation for irrigating small and medium size farms in both electrified and non-electrified rural areas of India. This number is likely to increase by another million or two in next decade as per programme fixed during the current Sixth Five Year Plan period and anticipated programme during the next i.e. Seventh Five Year Plan period. It is also estimated that 30 to 35 per cent of these pumpsets are driven by oil engines and the rest by electric motors, the H.P. range of the bulk of these two types of prime movers being 2 to 5.

While rural electrification has made considerable advances in India during the last two decades, there are still thousands and thousands of Indian villages and their surroundings where electricity is not yet available. This is due to shortage of electric power generation in the country and lack of timely availability of funds for installing quite costly electric power transmission lines over all the rural areas of the country. Similarly, the use of diesel and lubricating oils required for running engine driven pumping sets on small farms in non-electrified areas is becoming more and more difficult day by day on account of regularly increasing costs of these oils. There are also uncertainties about their regular availability due to shortages and transport/distribution bottlenecks.

There is, therefore, good and sufficient necessity to arrange alternative sources of energy, to whatever extent possible, for powering some of the agricultural pumping requirements of the country.

Alternate energy sources

Amongst various alternative non-

conventional renewable sources of energy now being developed all over the world, the following three can be considered quite feasible for powering small agricultural pumping sets.

1. *Bio-gas*: Engine driven pumping sets can now be run on bio-gas instead of diesel oil. Bio-gas engines have not only been now developed by some manufacturers in the country but even existing diesel engines can be modified at small costs to run on bio-gas.

2. *Wind mills*: Another non-conventional source of renewable energy for operating small agricultural pumps is wind. But, such use of wind as motive power through wind mills requires certain minimum wind velocities which are not always available in many parts of the country. Power harnessed from each of such windmills, even under optimum working conditions, will not be always sufficient to lift required quantity of water for irrigating small farms for different types of crops. Under these circumstances, much headway has not yet been made in the country to develop the idea of using wind energy for pumping water for irrigation.

3. *Solar energy*: India is now trying to harness solar energy for irrigation pumping and other uses requiring limited amount of energy for each application. It is, of course, known for generations that the sun is the real source of supply of energy required for plant and creature life on our planet. However, for the energy required for power equipment in use for the betterment of the human beings of this world people had so far remained contented by drawing most of that energy from inside the earth itself by bringing out fossil fuels like coal, oil etc. It is only when these fossil fuels started becoming very costly to purchase and their sources getting depleted day by day, that a thought is now being seriously given to use radiation coming to the earth from the sun as the direct source of obtaining energy.

The world receives sun radiation basically in the form of heat and light. These heat and light energies from the sun can be changed into useful and energy in those parts of the world where the sun shines almost daily without too much

most all the year round, except during the monsoon months, is in a very favourable position to utilise the solar energy directly in various usable forms. As per data collected by some Indian Government agencies, 82 per cent of the total areas of this country receives on an average, solar radiation in the range of 400 to 500 calories/cm per day. Furthermore 9 per cent area receives it at a higher rate in the range of 500 to 550 calories/cm 2 per day.

Advantages of pumping by solar energy

It would be a great boon for India if this abundance of sunshine can be utilised for powering atleast a part of the population of 5 to 6 million lift irrigation pumpsets in operation at small farms of our country. It can be also utilised for water supply schemes for small villages. Some of the important advantages of using solar energy for pumping water at these small farms and villages would be to help:—

(1) Increase irrigated land areas at remotely located farms not within the reach of electric grid distribution system of that region and not provided with any pumping facilities so far.

(2) Reduce diesel and lubricating oil requirements of the country and electrical power as presently used for running existing agricultural pumping sets.

(3) Reduce running and operation costs of energy to practically nil, as solar energy is available to everybody free of charge and is also not subject to any government taxes.

(4) Save huge capital costs now incurred in installing and maintaining electric power transmission and distribution lines to remotely located pump installation sites in rural areas, quite a number of which do not have any direct road or rail communications.

(5) Reduce worries of farmers about receiving adequately and in time the electric power at proper required voltage from centralised sources located far away from pumping sites, as solar energy availability is renewable and local and decentralised.

(6) Avoid pollution of atmosphere

Conversion of solar radiation to energy for pumps

Solar energy is radiated to the earth mainly in the form of heat and light, both of which can be harnessed for powering water pumps as follows:

(a) *Heat*: It is necessary to collect sun heat in a concentrated form before it can be transformed into thermal energy

strong enough to do work. This is done with the help of heat collectors. Such concentrated thermal energy can be converted to mechanical energy for powering centrifugal and positive displacement pumps. But such conversion is rather inefficient and very expensive in the case of small power requirements for irrigation and water supply pumping in Indian rural areas. Thermal energy obtained from

solar heat collectors can also be applied directly to lift water based on the principles of Rankine or stirling heat cycles. Metal Box India Ltd., Calcutta and Brown Boveri Ltd., Baroda are at present in the process of completing development of their 'Fluidyne' and 'Soliretes' type pumping systems for commercial sales to rural areas. These systems utilise thermal energy for pumping water by using the above heat engine cycles principles and do not require any mechanical movement of any of their components for pumping work. Both these systems have at present some imitations for developing total heads higher than 6 to 7 metres and may not therefore be suitable where water to be pumped is more than 6 to 7 metres below ground level.

(b) *Light*: Light coming from the sun can be transformed into electricity with the help of photovoltaic cells. This fact was first discovered by the French scientist Becquerel as early as 1839. This process of converting light to electricity is carried out by a cell formed by the junction of two layers of doped semiconductors. These cells are solid state discs or wafers of approximate 50 or 75 or 100 mm diameter and are mainly produced from silicon after it is put through highly sophisticated manufacturing processes. Metallic contacts of highly conductive silver compound are attached to the front and rear of each wafer.

When photons i.e. light particles fall on such cells they free electrical charge pairs which can be separated and collected by a built in internal field and the external electrical circuit as shown below. The basic principle of this process is identical to that of a transistor. The D.C. electric current thus produced from the sun light can be used to light an electric lamp, operate a radio or T.V. set, charge batteries, or power a small D.C. motor which in turn can drive any of the various domestic appliances and gadgets as also water pumps.

Photovoltaic cells and modules

When exposed to sunlight each 100 mm diameter photovoltaic cell generates D.C. current of about 2 amps at 0.45 to 0.50 volts. These are peak values and they will vary in accordance with the fluctuations in the intensity of sunlight falling on the cells. By connecting these cells in various series and parallel combinations, D.C. current of required amperage at different voltages can be produced from the sunlight for operating any D.C. power driven equipment or gadgets.

Such a combination of some 30 to 40 cells are mounted inside a sealed glass covered frame known as a module. Several such modules connected to each other again in the series and parallel are mount-



posts are provided with arrangements to make the cells face the sun by tracking its movement from east to west during day-time for producing the required D.C. power continuously.

These photovoltaic cells/modules were used for the first time practically about two/three decades back for supplying continuous electric power from sun-rays to artificial earth satellites when orbiting round the earth. They are mounted on the outside of each satellite for facing the sun and D.C. power generated is transmitted inside the satellite for charging the batteries supplying power to various instruments and gadgets installed in the satellite for various operations and observations.

Photovoltaic cell manufacture in India

After the technological viability of this method was fully established by its use on artificial satellites, 1973 world oil crisis gave an impetus to use this method for developing this non-conventional renewable energy source for obtaining electricity in remote areas not provided with usual electric power supply lines. It was soon realised that limited amount of electric power required for lighting, battery charging, operating radio and T.V. sets as also domestic appliances at small cottages located in remote villages and rural areas can be easily provided by photovoltaic cells from solar energy. Such D.C. power if generated upto 2 to 3 kw with a reasonable capital investment for the equipment can also be used for running D.C. motors which in turn can drive centrifugal pumps for pumping water for domestic and irrigation requirements at small farms located in areas of regular sunshine. This idea coupled with various advantages associated with this method of obtaining energy direct from the sun has attracted various organisations of the developed countries to take a lead in producing various photovoltaic power operated equipments including pumping sets of small sizes for commercial use.

Unfortunately, with the existing economic conditions prevailing in a poor country like India, private enterprises have not been able to venture, so far, for investment in R & D for technological development of photovoltaic cells at lower costs, when there is yet no

guarantee for an assured market in our country for applications for which photovoltaic method of generating D.C. current can be used profitably. However, the Government of India has realised the tremendous scope for using this method for irrigating small farms and other applications and have taken it upon themselves, since 1975, to put in efforts for production oriented research and development of photovoltaic cells in India. It has also arranged extensive field trials to make sure that this method of water pumping becomes ultimately viable and acceptable to our small farmers.

Accordingly, the Indian Government has entrusted this work to its own unit i.e. Central Electronics Ltd., Sahibabad in U.P., near Delhi, operating under the Department of Science and Technology. A special cell has been set up at C. E. L. by the name of "Solar Photovoltaic Project" for necessary development work.

When photovoltaic cells were first manufactured for use on artificial satellites, their very high cost of production did not matter to countries like the USA and Russia which for various reasons were ready to spend any amounts for the success of their programmes to conquer the space. Since then with further research and resultant improvements in

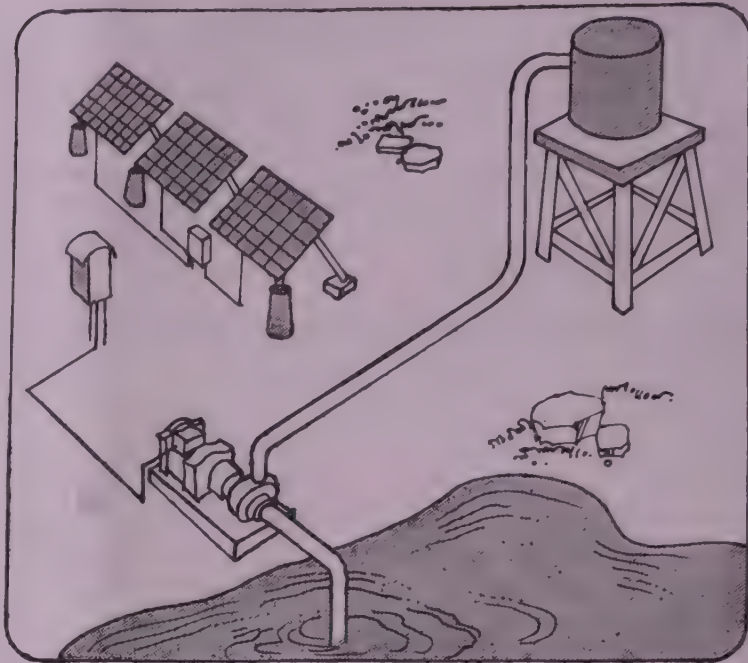
manufacturing techniques and increased quantity requirement, considerable reduction has been made in the unit cost of these cells. But even the present manufacturing costs are high and it is an important assignment of CEL to continue further research with a view to bring down the present manufacturing cost of these cells, to one fourth as far as possible. CEL is now busy in intensifying these efforts and expects to achieve its target in a few years.

Photovoltaic water systems

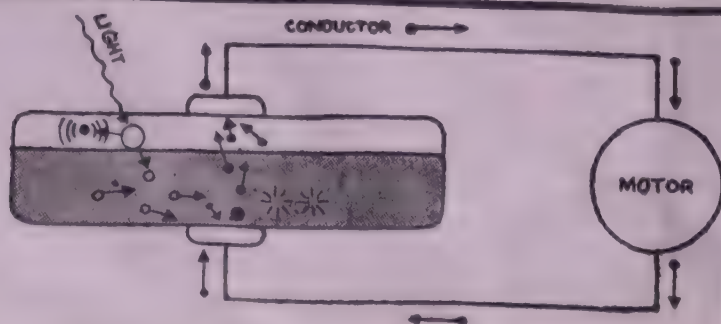
For pumping irrigation water from dug wells, tube wells, canals etc to 1 to 2 hectares size small farms in India, it is known from experience that an average pumpset should discharge approximately 4 to 10 litres of water per second against total heads varying from 2 or 3 to about 10 metres. The sizes of prime movers required for driving such pumps would therefore vary from $\frac{1}{2}$ to 5 H.P. Initially, CEL in consultation with minor irrigation and other concerned ministries proposes to concentrate on providing solar energy operated irrigation water systems to those areas in the country where discharge capacity of 3 to 6 litres per second at total heads of 2 to 6 metres is sufficient to irrigate 1 to 2 hectares sizes farms of small farmers. It is expected that once the equipment required becomes commercially viable, thousands of such water systems can be sold in the country.

Manufacture of suitable pumpset

With CEL efforts to produce low cost photovoltaic cells, the pump industry in India can also be expected to assist it in bringing down the cost of the proposed solar water systems by producing not only the required half to two H.P. D.C. motor operated pumpsets.



Horizontal solar pumpset in operation



Generation of electricity by photovoltaic cell

Solar energy operated vertical turbine and submersible pumpsets

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Pump industry—A profile

THE growth of the Indian pump industry since the early twenties when pumps were first manufactured in the country has indeed been remarkable. In fact, judging from its impressive record of growth in terms of both volume of production and sophistication in the range of manufacture, the Indian pump industry has few parallels. The stimulus for growth came mainly from the stress in the successive Five Year Plans on development of agriculture and strengthening of the industrial sector of the economy. Priority accorded to development of process industries such as fertilisers, power generation, pharmaceuticals, petrochemicals and basic chemicals provided a big impetus to diversification of production. Over the years not only has the production base for pumps been broadened but the capability to undertake manufacture of sophisticated pumps to indigenous designs has also been built up. As a result, the industry today can meet almost the entire domestic requirements of various types of pumps in quantity as well as quality.

There are now 46 manufacturers of pumps registered with Directorate General of Technical Development and another over 400 units in the small scale sector registered with the industries directorates of various states. The present production of all types of pumps in the country both in the organised, small and medium scale sectors amounts to around 7,00,000 numbers per year. The total capital investment in pump

industry is estimated at Rs 30 crores and the total employment directly in pump industry is to the tune of 20,000.

As regards process pumps, there are four units registered with the Directorate General of Technical Development with an installed capacity of 6,500 pumps per annum. The production of these units is in the neighbourhood of 4,500 pumps per annum.

Industrial canvas

From the initial single use of drawing and supplying water, the pumps today are put to varied uses and their coverage encompasses the entire industrial canvas. In every industry today there are stages of manufacturing processes where there is need to transfer fluids or semi-fluids and this need is fulfilled by pumps of various sizes, designs and materials of construction. Pumps find use in all fields like agriculture, irrigation, construction industries, mines, refineries, chemical manufacture process, steel plants, power generation, sugar paper, dry docks shipbuilding etc. In terms of liquids the pumps handle clear, heavy and turbid waters, sewage effluents, liquids with suspended solids, slurries, acids, alkalies, hydrocarbons, oil, volatile fluids etc.

The types of pumps manufactured in the country comprise centrifugal pumps, multi-stage, radial and mixed flow, non-clog, split case, self-priming, axial flow, vertical turbine, submersible, rotary reciprocating, diaphragm, gear and mono-block pumps. On the basis of liquids used, the range of pumps manufactured indigenously include water pumps, sewage pumps, chemical pumps and special duty pumps. Some of the complicated and highly sophisticated pumps required for atomic power plants have been included in the present range of manufacture. The Indian pump industry has manufactured very large pumps of the order of 1,500 mm for a discharge of 3,60,000 Lpm. The capacity to make still larger pumps also exists.

Materials of construction

Cast iron, cast steel stainless

nihard, various types of bronzes, (aluminium, manganese etc.) monel etc. Also in plastic construction as well as with lead, rubber, glass, enamel, FRP, PTFE, PVC and teflon lining. Other special construction can also be offered for specific applications.

Standards

The pumps are manufactured as per Indian, British, DIN and American Standards. It has been recognised that the pump industry in India has not only achieved a high level of output and thereby exceeded targets but also satisfied the diverse needs of industries in the country. It has also achieved a high degree of

India's imports and exports of pumps and pump parts
(Rs crores)

Year	Imports	Exports
1970-71	4.0	1.2
1971-72	5.1	1.0
1972-73	6.0	1.7
1973-74	6.3	2.6
1974-75	10.5	4.3
1975-76	11.9	7.4
1976-77	18.4	7.2
1977-78	25.1	9.4
1978-79	31.4	15.3
1979-80	30.2	13.7

sophistication which compares well with Western standards. The industry produces large capacity water handling pumps required for big irrigation and water supply projects as well as dry docks. The industry is also geared to make special purpose pumps required by chemical, petrochemical industries, oil refineries, thermal and nuclear power stations.

An example of Indian manufacturers achieving a high degree of technological competence is their success in obtaining assignment in open global competitions. The manufacturers have developed special centrifugal pumps to handle mercury at 100 degree centigrade, ossein and crushed bones for hydrochloric acid slurry, molten sulphur iron oxide slurry in steel plants etc. They have produced large cooling water pumps, condensate extraction pumps and turbines for various sizes of power

Capacity and production of power driven pumps

('000 nos)

Year	Capacity	Production	(Per cent) Capacity utilisation
1971	455	244	54
1972	455	278	61
1973	500	325	65
1974	550	273	50
1975	360	287	80
1976	621	288	46
1977	621	360	58
1978	624	372	60
1979	624	348	56
1980	624	370	59
1981	N.A.	352	—

The industry has also designed and produced mixed flow pumps with discharge of 7,500 cu.m. per hour mounted on floating barges for special irrigation schemes, booster pumps in horizontally split casing design in sizes of 200 x 250 mm, for boiler feeding to handle water at very high temperature with special design capable of withstanding thermal shocks arising from sudden variations in temperature. Thus it can be seen the industry has laid solid

foundation for its own growth in a self-reliant manner.

Exports

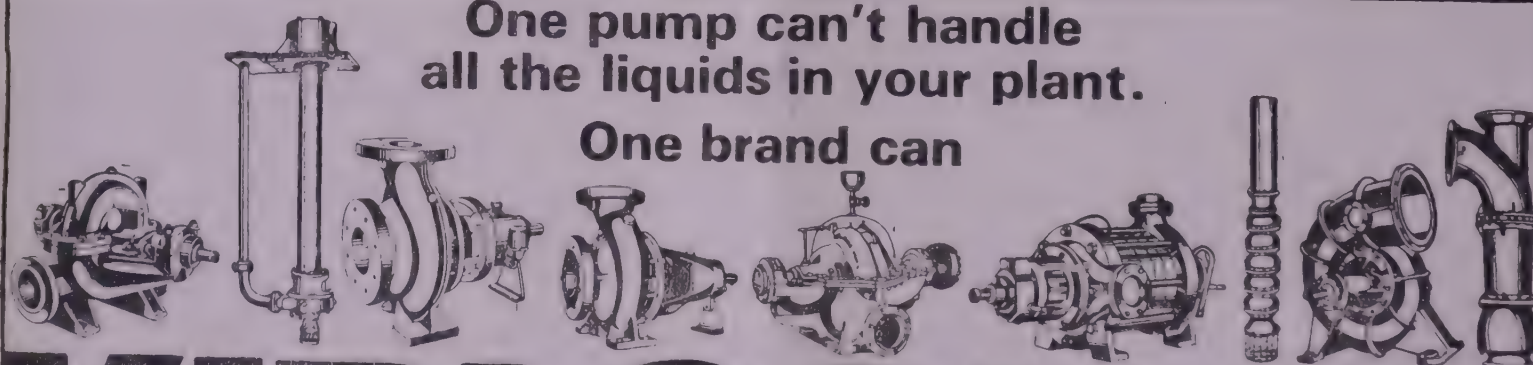
Indian has also been making steady in-roads into overseas markets an index of the sophistication and high standard of quality the industry has attained. More than 20 manufacturers are regularly exporting their pumps to more than 65 countries of West Asia, Far East, Africa, Europe, Australia, New Zealand, etc. Exports of pumps have

quadrupled over the years. Almost 1,000 pumps per month are presently exported to developed countries in Europe. Joint venture projects have been set up in Sri Lanka, Malaysia and Mauritius for the manufacture of pumps.

The technical capability of Indian pump industry could be gauged from the fact that indigenous R & D facilities are available for products and process innovation.

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these items is Rs 933 crores. The future outlays would be higher on these items because of more emphasis to be given to these items for continuous progress in agriculture.

Summary

The methodological aspects in determining the capital requirements for the modernisation of crop production in India have been discussed with particular reference to the type of data required. It is suggested that for this purpose the country should be divided into suitable regions depending upon agro-climatic conditions, the type of technology and management levels, and this exercise should be done crop by crop. The demand should then be projected in each of these regions on appropriate assumptions for the growth in population, income as well as income elasticities of demand.

Restricting the study to foodgrains comprising rice, wheat, coarse grains and pulses, the investment

requirements for intensification of land use in terms of gross cropped area, irrigation developments and expansion of gross irrigated area, fertiliser use in terms of total nutrients consumption, area under high yielding varieties and tractorisation were determined for the year 2000 AD. It is estimated that the future domestic demand of foodgrains projected at about 220 million tonnes at 2000 AD could be met by raising the total nutrients consumption to 10.5 million tonnes, gross cropped area to 150 million hectares, gross area under high yielding varieties to 90 million hectares and gross irrigated area to 66 million hectares. For meeting these input requirements, the investment required would be of the order of Rs 4,068 crores at 1979-80 prices in the form of annual working capital. The annual investment for foodgrain production on irrigation development, soil and water conservation, tractorisation including working capital is estimated to be Rs 9,489 crores.

Table-11 : Capital outlay for modernisation of agricultural production in India at 2000 AD

Sl. No.	Items	Capital requirements (Rs in crore)
1.	Irrigation :	
	(a) Major irrigation	42,235
	(b) Minor irrigation	2,166
2.	Soil and water conservation	1,222
3.	Tractorisation	1,038

Basis of computation

Irrigation : The capital requirement for the improvement of the existing system has not been included 28.7 million hectares to be irrigated through major irrigation at Rs 14,716 per gross hectare while 9.57 million hectares through minor irrigation at Rs 2,263 per gross hectare on the basis of 1979-80 prices.

Soil and water conservation : 20 million hectares to be covered under soil and water conservation at Rs 611 per hectare.

Tractorisation : The expenditure on improvement of the existing tractors as on January, 1980 has not been included. The capital required has been computed for 2,06,708 tractors (new) priced at the rate of Rs 50,000 per tractor (price averaged over different HPS).

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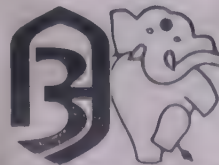
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SPECIAL REPORTS



The oil well at SJ-5 which was being drilled by Sagar Vikas being doused following a blow-out on July 30 (left) and the rig itself on fire on August 2 (right).

Set-back for oil programme

BOMBAY
INDIA'S oil programme has received a setback, at least temporarily, with a blowout in a gas well in the Bombay High area that has resulted in a huge fire damaging extensively the \$30 million Oil and Natural Gas Commission's (ONGC) cantilever jack-up drilling rig Sagar Vikas. The fire which broke out at six in the morning of August 2 was still raging in the afternoon of August 3 at the time of writing. The blowout at the test well, 70 km of Juhu (North Bombay), took place on July 30 but was not officially reported by the ONGC till August 1.

Neither the Minister for Petroleum, Chemicals and Fertilisers, Mr P. Shiv Shankar, gave Parliament an idea of the intensity of blowout or the magnitude of the loss in his statement on August 2. He did talk of a fire breaking out in the morning of August 2 in an exploratory well off southern part of Bombay High offshore but made no reference to Sagar Vikas being on fire. All that he told parliament was that ONGC experts made an emergency landing on one of the legs of Sagar Vikas jack-up rig with the assistance of personnel from Atwood Oceanic

and Okanagen helicopter. He described this as a "very unconventional and daring feat" which enabled the ONGC team to switch off the emergency generator for

Bombay spot Exchange rates of currencies as on 2nd August 82

(Currency units per Rs. 100)

Country	Currency	Selling T.T.D.D.	Buying T.T.clean
Australia	A. \$	10.395	10.595
Austria	A. Schilling	179.40	182.80
Belgium	B. Franc	482.00	492.50
Canada	C. \$	12.970	13.210
Denmark	D. Kroner	87.80	89.55
France	Franc	70.35	71.75
Hong Kong	H.K. \$	61.15	62.70
Italy	Lira	14195	14485
Japan	Yen	2654	2700
Malaysia	M. \$	24.33	24.81
Netherlands	Guilder	27.96	28.48
Norway	N. Kroner	66.60	68.05
Singapore	S. \$	22.16	22.60
Sweden	S. Kronor	62.80	64.10
Switzerland	S. Franc	21.60	22.00
UK	£	5.9815	6.0255
USA	\$	10.400	10.505
West Germany	D M.	25.32	25.76

Source: Syndicate Bank, International Division, Central Office, Bombay 400 002

protection against fire. He also told Parliament that the ONGC has mobilised all possible resources to control the situation and that the fire fighting was continuing with the help of Pacific Constructors and one supply vessel Gulfleet-46. Naval ships, planes and helicopters had also been mobilised to help ONGC.

But his statement that a team of three American experts, of the Red Adair company considered the most leading experts in recapping offshore oil wells that have gone out of control, underlined the magnitude of the problem. It was also announced late on August 2 that the ONGC had struck a deal with another contractor for the emergency chartering of a semi-submersible rig from the Gulf to drill a relief well with which to contain the blowout. The Adair team reached Bombay on Tuesday morning and was flown by helicopter immediately on the spot in order to help it to evolve a strategy for capping the well.

Sagar Vikas was one of the three rigs owned by the ONGC and the very extensive damage that the rig has suffered will certainly slow down the pace of exploration and drilling activities of the ONGC. The ONGC had recently announced an accelerated programme for exploration and drilling which would have

SPECIAL REPORTS

ated 13.95 million tonnes during 1982-83 to 16.57 million tonnes in 1983-84 and 9.12 million tonnes in the last year of the Sixth Plan in 1984-85. ONGC's total production was projected at 30 million tonnes in 1984-85 against 21.6 million tonnes indicated earlier. The setback in Bombay High, which is the only offshore field of the ONGC, could well upset this programme. At the time of writing no clear picture was available as to the extent of the damage done by the blowout which was of unusual magnitude and fire for a clear picture could be expected for the next few days. It is difficult in these circumstances to assess the extent of the setback that the country's oil programme has received.

Significantly enough, it would appear that the ONGC was not prepared for such a blowout. In the Bombay High area itself a blowout occurred some years ago but it was controlled soon. Similar blowouts had occurred in Narsapur, Arunachal Pradesh and Assam. The one in Bombay High on July 30 was at a depth of 166 cm was something, however, that the ONGC had not bargained for. Some reports have suggested that the ONGC had in store no equipment of the type needed to cap a well that has gone out of control. Every time it has had to seek such equipment after the accident had occurred. Neither the ONGC has been prepared for the prevention of pollution that has followed the Bombay High blowout.

Rig totally destroyed

BOMBAY

THE jack-up cantilever drilling rig **Sagar Vikas** has been totally destroyed in the fire which broke out after a severe blowout at well SJ-5 at the Bombay High on August 2 and died down on fourth day. The chairman of the Oil and Natural Gas Commission, (ONGC) Col S. P. Vahi, has said: "I don't think anything could be salvaged from it. We have to find a replacement."

The three experts from the Red Adair company, who have been commissioned by the ONGC to cap the well had earlier said that it will be another two weeks before the fire is put out. The ONGC chairman also made a similar statement at one of his press briefings.

He has told newsmen that there was no danger of pollution at all and that there was also no damage to any other installation in the area. A little oil spill was likely in the time gap between the killing of the fire and capping the well. But this little oil spill would

not reach the shore because of the long distance involved.

Col Vahi said that, in spite of the serious situation, the ONGC would maintain the target of 12.11 million tonnes per annum from the off-shore and "we are confident that we will exceed it". On July 30, 74 Bombay wells were yielding oil and the total production on that day was 242,000 barrels, the maximum possible during the monsoon. The same level of production was maintained in the next two days. However, because of the additional checks introduced, the production would vary hereafter from 230,000 to 240,000 barrels a day.

He said also that three rigs have been ordered by the ONGC from Singapore and Japan. **Sagar Vikas** had been insured for replacement value. United India Fire and General Insurance Company spokesmen have clarified that the seepage, pollution containment and clean-up operations have also been covered. However, there was a ceiling on the compensation for this coverage.

UP mobilises large funds for development

LUCKNOW

UTTAR Pradesh mobilised institutional finance amounting to Rs 787.40 crores during 1981-82. This consisted of Rs 394.19 crores for the creation of fixed assets (term loans) and Rs 393.21 crores for maintenance of assets (working capital loans). The entire amount was mobilised through financial/banking institutions for the state/public/co-operative sector enterprises and other state-sponsored developmental programmes in the rural sector.

The State Government is trying its best to mobilise additional resources for financing the Sixth Plan to the tune of Rs 1,000 crores dur-

ing the current Five Year Plan period. The Planning Commission has fixed the Sixth Plan outlay at Rs 6,200 crores. Besides mobilisation of additional resources, the State Government, public enterprises and the State planning commission are also doing their best to raise their resources in the Plan outlay in consultation with the Government of India.

Since its inception in 1972, the State Institutional Finance Department has spearheaded efforts to mobilise institutional finance for bridging the gap between financial requirements of the State's economic and social development and re-

sources available through the State Plan and budgetary funds. In addition to this, purvey of credit to individual beneficiaries through implementation of district credit plans is also being vigorously followed.

There has been a wide dispersal of bank branches in the rural sector. During 1981-82, as many as 659 bank branches were opened. At present, there are 3,500 (78 per cent) of the total branches (4,595) in rural and semi-rural areas of the State. With the opening of the new branches the per branch average population has been brought down from 22,000 to 20,000.

For intensive rural financing, 29 Regional Rural Banks covering 34 out of the 57 districts of the State have been covered. The existing banks have financed 467,000 people belonging to the weaker section to the extent of Rs 67 crores until the end of December 1981.

SPECIAL REPORTS

Record tea exports

From P. C. MAHANTI

CALCUTTA

INDIA'S exports of 245 million kilograms of tea in 1981 has created a new record. While this may be a matter for congratulation, there is unfortunately an adverse development on the packet tea exports side. In fact, Mr S. N. Srivastava, president of Tea Packeters Association of India, has described it as a serious setback. The share of packet tea exports to total exports has sharply come down.

The reasons for the setback given by Mr Srivastava are several. They include unsettled conditions in West Asia, tremendous competition from some producer countries where exporters enjoy considerable assistance from their governments, and some countries selling their branded products at substantially reduced prices.

Just as on the export front, so on the domestic side, packet tea also

has been losing ground. Of the total consumption of tea in the country only a little over a quarter is in packet form. The balance is sold as loose. Of the growing domestic market for tea, the loose variety has been gaining ground at the expense of packets though the latter may be more hygienic to consume and have a better quality content. In Mr Srivastava's opinion the main reason which has caused the greatest damage to the growth of package sector in the country is the discriminatory excise duty on packets. The excise duty has raised the cost of packet by widening its price differential with loose tea and it has shifted the tea market operation from an organised homogenous sector to totally fragmented heterogenous activity on a large scale which in his view, does not benefit the consumer at large and is certainly not a healthy trend for the industry. The economic significance of the packet tea industry

is obviously considerable. It increases employment in organised units, reduces the importance of the middleman, benefits the tea producers while ensuring more hygienic products with consistent quality at reasonable prices. Moreover, an established domestic base will ultimately help in scouting for the more profitable export order and thereby strengthen the country's export ability.

The chairman of the Tea Board, Mr B. K. Goswami who was the chief guest at the function of the association's annual general meeting, also stressed the vital importance of the packet tea industry but he felt that the industry was not adopting the right marketing techniques and taking things easy. He felt that too many brand names were not really helping export promotion. The confusing multiplication rather affected the image of Indian tea. Mr Goswami would like seminars organised by the industry to discuss marketing promotion techniques and packaging methods that can have great appeal to foreign buyers. He was against the use of the extensive western media to promote packet tea exports but he would not mind if more television time was bought for communicating the message.

Meanwhile, Indian tea production during the first six months of 1982 shows that the output was still lagging 12 million kilograms behind the last year's figure. The annual tea market report by Messrs J. Thomas and Company takes an optimistic view of the current year's market prospects for tea. Among the major consumers, Russia, Poland, Iraq and the Gulf countries are expected to buy more; so should Iran where there has been a shortage of tea, but political situation in that country may stand in the way of larger imports.

The leading broker firm also anticipates a revival of demand in the domestic market, firstly because of larger supply of sugar and secondly because of slim inventories at the major upcountry stock points and a negligible quantity in the pipeline. There has been virtually nil carry over of teas from 1981 production.

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

Item	Quality	Rs per kg				Percentage variation on July 30, 1982 over		
		July 30, 1982	July 23, 1982	July 2, 1982	July 31, 1981	A week ago	A month ago	A Year ago
Rice	Average	500	4.75	4.50	3.50	5.3	11.1	42.9
Wheat	Average	4.25	4.00	3.60	3.50	6.3	18.1	21.4
Jowar	Average	3.00	3.00	3.00	2.20	—	—	36.4
Bajra	Average	3.00	3.00	3.00	2.20	—	—	36.4
Gram dal ..	Average	6.00	5.50	5.00	6.30	9.1	20.0	-4.8
Tur dal .. .	Average	7.75	7.50	7.00	6.60	3.3	10.7	-17.4
Potatoes ..	Average	2.50	2.50	2.50	2.40	—	—	4.2
Onions .. .	Average	1.50	1.50	1.75	1.60	—	-14.3	-6.3
Milk per litre	Buffalo	6.40	7.00	7.00	6.00	-8.6	8.6	6.7
Tea	Average	26.00	26.00	24.00	23.00	—	8.3	13.0
Coffee .. .	Average	20.00	20.00	19.00	17.50	—	5.3	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.55	1.55	1.55	1.55	—	—	—
Sugar .. .	Average	6.00	5.80	5.50	6.80	3.4	9.1	-11.8
Gur	Average	6.00	6.00	5.50	5.50	—	9.1	-7.7
Groundnut oil ..	Average	15.00	15.00	14.50	15.50	—	3.4	-3.2
Vanaspatti .. .	Average	17.00	17.00	17.00	16.00	—	—	6.3
Toilet soap ..	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

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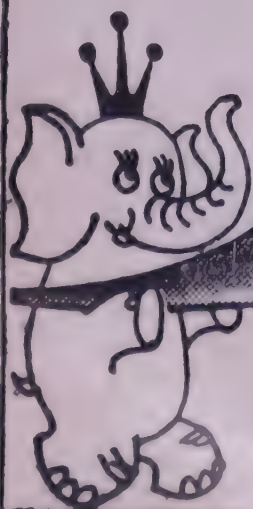
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SPECIAL REPORTS

Privatisation of British Economy

from STEPHEN HUGH-JONES

LONDON

MRS Thatcher may well go down in British economic history as the prime minister who saw unemployment grow beyond the 3 million mark, and blithely let it grow. Yet it would be unfair to her to forget the far more positive achievement: the ongoing privatisation of the public sector.

Here her government has been truly radical—and pretty certainly right as well.

The latest, and the most radical, proposal is for a sell-off of 51 per cent of British Telecom—the telephone system, no less. And, which will matter more and more in future, the data-transmission system.

The plan cannot be put into effect before the next election. But this denationalisation of what in most European countries, however, right-wing, is regarded as a basic element of the public sector, represents Thatcherism at its purest, even though the state will remain, with 49 per cent, much the largest shareholder.

The arguments for it are partly doctrinal: Mrs Thatcher believes profoundly that 'rolling back the frontiers of the state' is a good thing in itself.

But there is more to it than that. She—and a great part of the British public—believe that state industry is (almost *ipso facto*) less efficient than it would be under private-sector control.

Equally, both she and the British public believe in the merits of competition. Since last year, BT's statutory monopoly in nearly all aspects of telecommunications—not least the supply of equipment—has already been breached.

Private-sector competitors are now allowed to sell equipment (though, wondrously, BT still has to test it and give it the OK, from a technical point of view). And there is an ambitious plan, named Mer-

work, using optical-fibre transmission, mainly for data transmission and business use.

BT, partly in response, has in fact pulled its commercial socks up wonderfully over the past 18 months. But the government believes that the full merits of competition will not be felt until there are private, market-oriented shareholders breathing down the backs of the state industry managers.

There is another merit too. BT has been demanding the right to seek capital in the marketplace for its huge investment programme. But it has run into a Treasury objection. Being, ultimately, backed by a government guarantee, this would count as public-sector borrowing—and the size of the public-sector borrowing requirement (PSBR) is one of the great shibboleths of monetarism.

So, however commercial the intentions, however profitable the results, BT borrowing in the capital markets would run counter to the government's aims of monetary control.

But, 10 and behold, if the government only owns 49 per cent, the borrowing is no longer defined as part of the PSBR. It becomes virtuous, industrial capital-raising instead, leaving BT happy and the Treasury happy too.

So, if the Tories are re-elected, British Telecom will join the growing band of ex-state industries. Already, this government has sold off just under half of Cable and Wireless, the international telecoms business, and just over half of British Aerospace, the result of Labour nationalisation of aircraft-building a few years earlier.

It has told the state railways to get out of their hotel business, British Gas to get out of its oil interests. It wants to dispose entirely of the state-owned docks and ports. The National Enterprise Board, Labour's instrument of industrial strategy, has had its wings dipped and been told to sell out of its numerous holdings wherever it can. The National Freight Corporation, a state-owned though not monopoly road-haulage operation, has been sold to its staff.

Of course, if Labour wins power, the whole current will be reversed. Indeed, the original threat from the Labour Party was that it would be reversed with no compensation whatever when the new private shareholders were dispossessed.

That threat, of course, was intended to frighten anyone off from becoming a shareholder, but it failed miserably: Cable and Wireless and British Aerospace are stars of the stock exchange, although, even now, Labour is saying that any compensation would be no more than the price originally paid for shares.

Even a Labour government might usefully think twice about renationalisation. All the evidence is that the British public—Labour or Conservative voters almost alike—are against state ownership.

However, the evidence also is that Labour ideologues don't care a damn what the British public thinks, so long as it elects them to power. So it may be that Mrs Thatcher's bold experiment will eventually come to nothing—thanks, for instance to those 3 million unemployed.

Unofficial foreign currency rates in Hongkong

(as on July 26, 1982 in Hongkong \$)

	High	Low	T.T.
Australian \$	5.93	5.82	6 0290
Belgian Franc(100)	11.50	10.50	13.065
British £	10.40	10.18	10.425
Burmese Kyat(100)	25.00	15.00	
Canadian \$	4.70	4.63	4.7270
French Franc	0.880	0.845	0.8945
Indian Rupee(100)	48.00	45.00	63.00
West German DM	2.455	2.365	2.4875
Indonesian Rupiah (100)	0.90	0.85	
Italian Lira (100)	5.10	4.60	
Japanese Yen (100)	2.35	2.295	2.3915
Korean Won (100)	0.77	0.72	
Malaysian \$	2.52	2.48	2.5600
Netherlands Guilder	2.22	2.145	2.2520
New Zealand \$	4.40	4.30	4.4700
Pakistan Rupee (100)	4.30	3.80	5.050
Philippine Pesos	0.695	0.675	0.7075
Singapore \$	2.77	2.73	2.8015
South African Rand	4.30	4.00	5.2590
Sri Lanka Rupee (100)	27.00	22.00	
Swiss Franc	2.915	2.785	2.9560
Taiwan \$ (100)	14.30	14.00	
Thai Baht (100)	26.60	25.80	

STATE BANK OF SAURASHTRA

BALANCE SHEET FOR THE YEAR ENDED 31ST DECEMBER, 1981

As at 31st Dec., 1980	CAPITAL & LIABILITIES	As at 31st December, 1981		As at 31st Dec., 1980	PROPERTY & ASSETS	As at 31st December, 1981	
Rs.		Rs.	P.	Rs.		Rs.	P.
	1. Capital:				1. Cash:		
2,00,00,000	Authorised Capital — 2,00,000 Shares of Rs 100 each. Issued, Subscribed and paid-up Capital (Pursuant to Section 6(1) of the State Bank of Saurashtra Act, 1950 as amended by part V of the Third Schedule of the State Bank of India (Subsidiary Banks) Act, 1959)	2,00,00,000		26,10,53,954	In hand and with Reserve Bank of India and State Bank of India (including Forcing currency notes).		31,68,98,474.91
					2. Balance with Other Banks on Current Accounts:		
				2,30,06,236	i. In India	11,05,18,065.32	
				12,79,034	ii. Outside India	44,21,813.72	
1,00,00,000	1,00,000 Shares Rs 100 each fully paid.		1,00,00,000.00	2,42,85,270			11,49,39,879.04
				7,00,00,000	3. Money at Call and Short Notice:		7,90,00,000.00
	2. Reserve Fund and Other Reserves:				4. Investments at or below Market Value:		
1,51,00,000	Reserve Fund as per last Balance Sheet.	1,58,00,000.00		67,98,60,372	i. Securities of the Central and State Governments and other Trustee Securities	79,00,80,772.10	
7,00,000	Add: Amount transferred from Profit and Loss Account.	10,00,000.00			ii. Shares Fully paid Partly paid		
1,58,00,000			1,68,00,000.00		Rs. P. Rs. P.		
	3. Deposits and Other Accounts:				a) Preference 4,60,405.00 —		
	i. Fixed Deposits Rs. Ps.				b) Ordinary 2,27,970.00 —		
1,01,50,00	From Banks 1,45,05,000.00			8,33,875	Total 6,88,375.00 —	6,88,375.00	
1,36,89,51,761	From Others 1,59,11,94,946.00			90,51,860	iii. Debentures or Bonds	85,80,932.50	
1,37,91,01,761		1,60,56,99,946.00		2,00,000	iv. Other Investments	2,00,000.00	
60,80,17,906	ii. Savings Bank Deposits	70,28,55,832.11		68,99,46,107	v. Gold	—	79,95,50,079.60
	iii. Current Accounts, Contingency Accounts etc.				5. Advances: (other than bad and doubtful debts for which Provision has been made to the satisfaction of the auditors)		
15,19,30,155	From Banks 11,59,21,078.94				i) Loans, Cash Credits, overdrafts etc.		
36,50,08,678	From Others 41,29,21,323.97	52,88,42,402.91	2,83,73,98,181.02		i. In India	1,74,02,83,221.47	
51,69,38,833				1,39,47,41,054	ii. Outside India	—	
2,50,40,58,500				—	ii) Bills discounted and Purchased (excluding Treasury Bills of the Central and State Governments)		
	4. Borrowings from Other Banking Companies, Agents, etc.:			15,88,72,745	i. Payable in India	16,67,72,255.05	
8,51,16,451	i. In India	13,14,50,748.00		93,98,737	ii. Payable outside India	1,57,16,061.60	
—	ii. Outside India	—	13,14,50,748.00	1,56,30,12,536			1,92,27,71,538.12
8,51,16,451					PARTICULARS OF ADVANCES:		
8,26,16,451	PARTICULARS:			1,24,72,17,557	i) Debts considered good in res- pect of which the Bank is fully secured.	1,79,24,90,299.24	
25,00,000	i. Secured by Securities of advances assigned for refinance	9,76,50,748.00		6,37,81,165	ii) Debts considered good for which the Bank holds no other security than the debtors' personal security.	2,48,90,716.74	
4,48,82,093	ii. Unsecured	3,38,00,000.00			iii) Debts considered good secured by the Personal liabilities of one or more Parties in addition to the personal security of the debtors.	10,53,90,522.14	
	5. Bills Payable:		4,85,78,427.80	25,20,13,814	iv) Debts considered doubtful or bad not provided for.	—	
	6. Bills for collection being Bills Receivable per contra:			156,30,12,536		1,92,27,71,538.12	
8,99,46,609	i. Payable in India	10,93,03,155.25		39,47,592	v) Debts due by Directors or officers of the Bank or any of them either severally or jointly with any other person.	51,70,336.43	
64,64,409	ii. Payable outside India	88,84,254.55			vi) Debts due by Companies or Firms in which the Directors of the Bank are interested as Directors, Partners or Managing Agents, or in case of Private Companies as Members.	—	
9,64,11,018			11,81,87,409.80		vii) Maximum total amount of ad- vances including temporary advances made at any time dur- ing the year to Directors or Managers or Officers of the Bank or any of them either severally or jointly with any other person.	59,89,150.54	
	7. Other Liabilities:						
2,58,92,835	i. Branch Adjustments	29,72,80,814.83					
—	ii. Dividend	—					
2,58,92,835			29,72,80,814.83				
8,90,15,839	8. Acceptances, Endorsements, & Other Obligations per contra:		7,86,99,597.08				
	9. Profit and Loss:						
4,056	Balance of profit as per last Balance Sheet	4,466.99					
7,00,411	Add: Profit for the year brought from profit and Loss Account	9,99,515.23					
7,04,467		10,03,982.22					
	Less Appropriations thereof:			43,97,105			
7,00,000	i. Transfer to Reserve Fund	10,00,000.00					
—	ii. Amount set aside for Payment of Dividend.	—					
4,467			3,982.22				
2,87,11,81,203	Carried Forward		3,53,83,99,160.75	2,60,82,97,867	Carried Forward		3,23,31,59,971.67

STATE BANK OF SAURASHTRA

BALANCE SHEET FOR THE YEAR ENDED 31ST DECEMBER, 1981 - CONTD.

As at 31st Dec., 1980	CAPITAL & LIABILITIES (Contd.)	As at 31st December, 1981	As at 31st Dec. 1980	PROPERTY AND ASSETS (Contd.)	As at 31st December, 1981
2,87,11,81,203	Brought Forward	3,53,83,99,160.75	2,60,52,97,867	Brought Forward	3,23,31,59,971.67
	10. Contingent Liabilities:				
2,37,550	a) Claims against the Bank not acknowledged as debts.	2,16,185.12	—	Maximum total amount of advances including temporary advances granted during the year to Companies or Firms in which the Directors of the Bank are interested as Directors, Partners or Managing Agents or in the case of Private Companies, as Members	—
—	b) Guarantee given on behalf of Directors or Officers of the Bank	—	—	(ix) Due from Banking Companies	—
27,19,35,913	c) Guarantee given on behalf of others	29,65,56,638.26	—	6. Bills Receivable being Bills for Collection per contra:	
33,60,044	d) On Bills of Exchange Re-discounted	35,53,298.50	—	i) Payable in India	10,93,03,155.25
1,62,95,592	e) On outstanding Forward Exchange Contracts	2,84,82,151.37	8,99,46,609	ii) Payable outside India	88,84,254.55
—	f) Other monies for which the Bank is contingently liable	—	64,64,409		
	g) Liability that may be due for Income Tax and Interest Tax for various years against which provision of Rs 1,29,64,015/- and Rs 3,63,77,200/- has been made in the accounts.	—	9,64,11,018		11,81,87,409.80
	Notes forming part of the accounts — as per Annexure 'A'	—	8,90,15,839	7. Constituents' Liabilities for Acceptances, Endorsements & Other Obligations per contra:	7,86,99,597.08
			89,74,163	8. Premises at Cost — Less Depreciation:	
			2,24,241	Cost upto 31st December, 1980	91,98,404.41
			91,98,404	Additions during the year	7,26,106.52
			31,26,602		99,24,510.93
			60,71,802	Less: Total Depreciation to date	34,30,192.80
					64,94,318.13
			1,54,64,755	9. Furniture and Fixtures at Cost less Depreciation:	
			12,17,352	Cost upto 31st December, 1980	166,82,106.87
			1,66,82,107	Additions (21,18,355.97)	
			1,09,59,243	Deductions (38,772.28) during the year	20,79,583.69
			57,22,864		1,87,61,690.56
				Less: Total Depreciation to date	1,21,08,556.53
					66,53,134.03
			1,32,36,264	10. Other Assets:	
			3,83,426	i) Interest accrued on Investments (Gross)	1,76,56,721.66
			1,21,29,360	ii) Motor Vehicles at cost less depreciation to date	6,17,238.98
			—	iii) Stationery, Stamps, Suspense etc.	1,48,21,935.45
			68,738	iv) Branch Adjustments	—
			2,31,23,620	v) Subsidy Receivable	68,738.00
			1,27,40,725	vi) Advance Payment of tax (including Tax deducted at source)	4,59,17,301.35
			39,79,680	vii) Adjustment Account of Interest Commission etc.	1,61,22,794.60
			6,56,61,813	viii) Commission accrued on Government turnover.	—
				11. Non-banking assets acquired in satisfaction of claims	9,52,04,730.04
2,87,11,81,203	TOTAL	3,53,83,99,160.75	2,87,11,81,203	TOTAL	3,53,83,99,160.75

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1981

Year ended 31st December, 1980	EXPENDITURE	Year ended 31st December, 1981	Year ended 31st December, 1980	INCOME (Less provisions made during the year for bad and doubtful debts and other usual and necessary provisions)	Year ended 31st December, 1981
Rs.		Rs. P.	Rs.		Rs. P.
14,67,18,625	1. Interest paid on Deposits, Borrowings etc.	17,82,76,287.46	22,49,68,083	1. Interest and Discount	26,91,11,321.00
8,63,64,921	2. Salaries, Allowances, Provident Fund and Gratuity	9,66,31,825.94	2,78,32,202	2. Commission, Exchange and Brokerage	3,07,53,916.57
37,272	3. Directors' Fees and Allowances	41,395.05	1,14,487	3. Rents	1,05,130.81
52,98,951	4. Rent, Taxes, Insurance, Lighting etc.	76,71,065.37		4. Net profit on sale of Investments, Gold and silver, Land, premises and other Assets (not credited to reserves or any particular Fund or Account)	17,733.99
4,83,329	5. Law Charges	4,91,744.82	31,079	5. Net Profit on Revaluation of Investments, Gold and silver, Land, premises and other Assets (not Credited to Reserves or any Particular Fund or Account)	—
24,38,115	6. Postage, Telegrams and Stamps	27,22,344.40		6. Income from non-banking assets and profit from sale of or dealing with such assets.	—
11,550	7. Auditors' Fees	12,750.00		7. Other Receipts	11,23,426.31
	Audit Fees Rs 12000/- Other Services Rs 750/-				
18,84,333	8. Depreciation on the Repairs to Bank's property	21,28,776.55			
25,34,122	9. Stationery, printing, Advertisement etc. (includes Rs. 1,27,457.25 spent on public relations and publicity during the year)	27,96,496.96	9,27,170		
—	10. Loss from sale of or dealing with non-banking assets.	—			
74,01,393	11. Other Expenditure	93,39,326.90			
7,00,410	12. Balance of Profit	9,99,115.23			
	TOTAL	30,11,11,528.68	25,38,73,021	TOTAL	30,11,11,528.68

STATE BANK OF SAURASHTRA

PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 1981 (CONTD.)

As on 31-12-1980	PARTICULARS OF REMUNERATION RELATING TO MANAGING DIRECTOR	As on 31-12-1981			
Rs.		Rs.	P.		
41,500	1. Salaries	42,000.00		B. K. Ghose	P. C. D. Nambiar
9,710	2. Allowances	9,125.04			<i>Chairman</i>
13,320	3. Employer's contribution to Provident Fund, Pension Fund or any other Super-annuation Fund.	13,518.72			J. Agarwal
—	4. Monetary value of any other benefits or perquisites	—			I. P. Shah
64,530	TOTAL	64,643.76			B. V. Pandya
					N. G. Mavalankar
					M. B. Deshmukh
					Rajinder Kumar
					P. D. Trivedi
					G. D. Bhatt
					M. F. Tamboli
					S. M. Patel

B. K. Ghose
Managing Director

R. H. Rajani
Chief Manager
Finance & Accounts

P. C. D. Nambiar
Chairman

J. Agarwal
I. P. Shah
B. V. Pandya
N. G. Mavalankar
M. B. Deshmukh
Rajinder Kumar
P. D. Trivedi
G. D. Bhatt
M. F. Tamboli
S. M. Patel

Directors

REPORT OF THE AUDITORS

We, the undersigned auditors of the State Bank of Saurashtra, appointed under Section 41 (1) of the State Bank of India (Subsidiary Banks), Act, 1959, report on the Balance Sheet and Accounts of the Banks as at 31st December, 1981.

We have examined the foregoing Balance sheet of the State Bank of Saurashtra as at 31st December, 1981, and the Profit and Loss Account of the Bank for the year ended upon the date with the Accounts relating thereto of the Head Office and the Darbargadh, Bhavnagar Branch and with the unaudited Returns submitted and certified by the Managers of other Branches, which Returns have been incorporated in the foregoing balance Sheet and Accounts.

We report that —

(i) in our opinion, the Balance Sheet (read with and subject to note thereon mentioned in Annexure 'A' and as per item (viii) mentioned below) is a full and fair one containing all the necessary particulars and is properly drawn up so as to exhibit a true and correct view of the affairs of the Bank, according to the best of our information and the explanations given to us and as shown by the books of the Bank:

(ii) where we have called for any explanation or information such explanation and information have been given to us and have been found satisfactory:

(iii) the transactions of the Bank which have come to our notice have been within the competence of the Bank:

(iv) the Returns received from the Branches of the Bank have been found adequate for the purpose of our audit:

(vi) the Profit and Loss Account shows a true balance of profit for profit for the year covered by such Account:

(vi) in our opinion the Balance Sheet and the Profit and Loss Account are drawn up in conformity with the law : and

(vii) in our opinion Books of Account have been kept by the Bank required by law.

(viii) the provisions of Section 418 of the Companies Act, 1956, have not been complied with.

Place: Ahmedabad
Date : 22-3-1982

NAUSHIR M. MARFATIA & CO.
Chartered Accountants

ANNEXURE "A"

Notes: Forming part of the Accounts:

1. Loans & Advances considered good include —

- Rs 538.27 lacs due from closed units and from a Textile Co., which has been nationalised. Suits are pending against the Companies and Guarantors.
- Rs. 134.44 lacs for loans and advances extended to certain sick units & sick units which are being nursed and further includes Rs 189.66 lacs for sticky loans which have been considered good taking into consideration the estimated value of securities. The said value, however, does not permit any detailed verification in respect of the said units.
- Claims pending with the Credit Guarantee Organisation amounting to Rs 103.10 lacs which are considered good on the basis that the same are recoverable under the Guarantee Scheme
- Rs 33.69 lacs in respect of Fraud (staff and others) in respect of certain transactions against which Rs 13.22 lacs have been recovered. The Bank has made provision of Rs 12.05 lacs upto 31.12.1981 and is of the opinion that the balance is fully recoverable out of immovable property seized etc.
- The likely short-fall that may arise in respect of the above advances, is however not ascertainable, at this stage.

- Branch Adjustments include difference of substantial amount in transactions (including carried forward from earlier years) between the Head office and branches inter-se. Steps are being taken to reconcile and effect consequential adjustments in respect of balance in various heads of inter-branch accounts including drafts paid without advice.

- Reconciliation and adjustment of difference in inter branch and inter-bank balances including S.B.I., R.B.I. and Foreign Bank Accounts continued to be in arrears, clearance whereof has been entrusted to Computility India Pvt. Ltd.
- General Ledger Balances are not in agreement with subsidiary Ledgers/ registers at some of the branches. Adjustments, if any, necessary will be made in the accounts on completion of reconciliation work.
- Balance in suspense account at the Head Office and Branches is made up of various entries, including some of long outstanding. The entries mainly relate to clearing adjustments, unadjusted entries relating to advances granted to staff members for travelling expenses and L.F.C., Legal Charges and D.D. Cancellation of S.B.I. etc. Efforts are being made to regularise the position.
- Due adjustments will be made in the accounts on finalisation of the above.
- Premises include residential flats of Rs 6,34,460/- at Bombay & Ahmedabad in possession and occupation of the Bank for its employees for which Title Deeds are yet to be made, since co-operative societies are under formation.
It further includes Rs 43,902/- for repairs to premises.
- Motor Vehicles include Rs 4,121/- for insurance & taxes.

- As per the past practice, expenses pertaining to Head Office and Darbargadh Branch aggregating to Rs 3,07,191/- and expenses that may be determined in case of remaining branches for the year 1981 have been debited in the year 1982.

CORPORATE SECTOR

the market

Golden Tobacco

Golden Tobacco Ltd (Registered Office: Tobacco House, Vile Parle, West, Bombay 400 056) is offering for public subscription at par 3 lakh 15 per cent secured redeemable non-convertible debentures of Rs 100 each totalling Rs 3 crores. The subscription list will open on August 10 and close on August 19 or earlier but not before August 12. The company was incorporated in June 1955 for manufacture of cigarettes. The object of the present issue is to augment the resources of the company.

Lamina Foundries

Lamina Foundries Ltd (Registered Office: Mahabaleshwara Building, Kadri, Mangalore 575 003) is offering for public subscription at par 2.12 lakh equity shares of Rs 10 each totalling Rs 21.20 lakhs. The subscription list opened on August 2 and will close on August 12. The company is setting up a project at Nitte, District South Kanara, Karnataka, for the manufacture of 3,000 tonnes per annum of graded and alloy iron castings.

Other developments

TELCO to expand

Tata Engineering and Locomotive Co Ltd (TELCO) has applied for a licence to expand its commercial vehicles production capacity in Pune from 11,000 to 6,000 vehicles a year. This will raise its total licensed capacity to 69,000 vehicles a year. With the permission to add 25 per cent to the licensed capacity, production of vehicles should reach 87,000 vehicles a year. According to earlier plans, the company's capacity was to be raised to 5,000 vehicles by the end of 1982-83.

Announcing this, Mr N. A. Palkhivala, vice-chairman of the company said, the company had reported encouraging performance for the year ended March 31, 1982 enabling the directors to maintain the 10 per cent dividend on the increased capital resulting from the two-for-five bonus issue.

The company's turnover in 1981-82 increased to Rs 802.95 crores from Rs

616.02 crores in the preceding year. Gross profit also went up to Rs 100.30 crores from Rs 71.51 crores, and net profit to Rs 41.88 crores from Rs 24.37 crores. Production of commercial vehicles increased to 46,240 vehicles, 27 per cent over the previous year's production of 36,297 vehicles.

Mr Palkhivala said, TELCO could produce 20 per cent more in the current year if the credit squeeze was relaxed and excise duties slashed. Export demand at Rs 60 crores for the company's vehicles in 1981-82, he said, was good but could not grow substantially because of shipping problems and would increase to Rs 75 crores in 1982-83.

Forthcoming company meetings

AUGUST 7 TO AUGUST 13

MAFATLAL INDUSTRIES LTD, Seth Mangaldas Girdhardas Townhall, Ellis Bridge, Ahmedabad—380 006 (August 7, 9.30 a.m.).

THANA ELECTRIC SUPPLY COMPANY LTD, Asian Building, 1st Floor, 17 -Nicol Road, Ballard Estate, Bombay-400 038. (August 11, 3.30 p.m.)

EASTEND PAPER INDUSTRIES LTD, 18, Netaji Subhas Road, Calcutta-700 001. (August 11, 3 p.m.)

INDIAN CARD CLOTHING COMPANY LTD, Bombay-Pune Road, Pimpri, Pune 411 018. (August 12, 12 noon)

PUBLIC SECTOR

KSFC: All-round progress

In 1981-82, Karnataka State Financial Corporation (KSFC) completed 23 years of useful services to the development of industries in the Karnataka State. For the year ended March 31, 1982, the KSFC recorded an unprecedented growth in terms of various parameters of performance like sanctions, disbursements and recovery.

KSFC's total sanctions in 1981-82 rose to Rs 32.49 crores involving 1,292 cases, the highest ever when compared to Rs 21.17 crores for 1,022 cases in 1980-81. This was 53.5 per cent higher than that in 1980-81. Out of the total loans sanctioned during 1981-82, 78 per cent has been availed for setting up new units and the balance 22 per cent for expansion/modernisation of existing units. The Corporation received 1,578 (1,109) applications during 1981-82 for an amount of Rs 43.48 crores (Rs 27.43 crores). Out of the total sanctions of Rs 32.49 crores

in 1981-82, the small scale industries have taken a major share of Rs 19.57 crores (Rs 13.94 crores in 1980-81). This works out to 60 per cent of the total sanctions. Loans disbursed in 1981-82 increased by 50.2 per cent to Rs 21.64 crores from Rs 14.41 crores in 1980-81. Total loans outstanding at the end of 1981-82 amounted to Rs 78.25 crores (Rs 62.69 crores). The overdues at the close of 1980-81 were Rs 18.10 crores (Rs 15.88 crores). The percentage of overdue instalments of principal and interest on loans outstanding as on March 31, 1982 stood at 23.13 per cent (25.33 per cent at the close of 1980-81.)

Total assistance to small industries since inception amounted to Rs 88.20 crores covering 4,339 units. During 1981-82, the corporation sanctioned 703 loans (547) amounting to Rs 15.02 crores (Rs 9.43 crores) to industries located in backward areas. Total assistance sanctioned to industrial units in backward areas since inception worked out to Rs 61.65 crores for 2,581 units, which constituted 44.2 per cent of the total effective sanctions of the corporation. Industrywise, out of the total sanctions of Rs 32.49 crores, the engineering industry availed major share of Rs 8.25 crores or 25.4 per cent. The food processing industries, including rice mills, stood second with a share of Rs 5.07 crores or 15.6 per cent. Transport units came third with a total assistance of 3.46 crores or 10.6 per cent.

KSFC's total income for 1981-82 increased by 33.42 per cent to Rs 8.34 crores from Rs 6.25 crores in 1980-81. Total expenditure incurred during 1981-82 was Rs 5.73 crores (Rs 4.52 crores). The profit before providing for taxation amounted to Rs 2.94 crores (Rs 1.73 crores in 1980-81). After transferring Rs 0.33 crore to reserve for bad and doubtful debts and also making provisions of Rs 0.99 crore for taxation the balance of profit available for further appropriation came to Rs 1.62 crores (Rs 1.00 crore). The directors have transferred an amount of Rs 4.64 lakhs to reserve fund and Rs 122.00 lakhs to special reserve. An amount of Rs 31.75 lakhs was set apart for payment of dividends, Rs 0.57 lakh for payment of interest on loan in lieu of capital and Rs 2.97 lakhs for payment of subvention received from State Government. The corporation's paid-up capital at the end of 1981-82 increased to Rs 10 crores from Rs 8.65 crores at the close of the previous year. Total reserves increased to Rs 6.60 crores from Rs 4.78 crores at the end of 1980-81.

Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rs lakhs)

Name of the Company	Gokak Patel Volkart		Mafatlal Fine & Spg. & Mfg. Co.		Mafatlal Industries		Shri Ambica Mills		Swan Mills	
Industry Group	Cotton textiles		Cotton textiles		Cotton textiles		Cotton textiles		Cotton textile	
Item	Year ended Dec.		Year ended March		Year ended March		Year ended Dec.		Year ended Dec.	
	1980	1981	1981	1982	1981	1982	1980	1981	1980	1981
Liabilities (at the end of the year)										
1. Net worth (i+ii)	941.2	1,099.9	1,821.1	1,530.0	2,764.4	2,864.1	1,431.7	1,894.3	959.5	1,037.2
(i) Paid-up capital (a+b)	326.1	326.1	677.0	677.0	810.0	810.0	556.7	556.7	241.3	241.3
(a) Equity	326.1	326.1	648.0	648.0	810.0	810.0	544.1	544.1	232.0	232.0
(b) Preference	—	—	29.0	29.0	—	—	12.6	12.6	9.3	9.3
(ii) Reserves	615.1	773.8	1,144.1	853.0	1,954.4	2,054.1	875.0	1,337.6	718.2	795.9
2. Borrowings (i+ii)	416.5	942.9	2,857.9	3,498.7	2,396.3	2,855.4	1,503.5	1,920.0	1,256.9	1,939.3
(i) Long-term	316.4	532.7	932.4	1,037.4	774.8	1,200.0	448.4	558.0	618.3	904.1
(ii) Short-term	100.1	410.2	1,925.5	2,461.3	1,621.5	1,655.4	1,055.1	1,362.0	638.6	1,035.2
3. Non-current liabilities and provisions	—	—	—	—	—	—	—	—	—	—
4. Current liabilities and provisions	615.8	677.5	1,499.1	2,241.3	1,017.6	1,411.1	1,379.5	2,058.9	1,115.3	1,672.9
Assets (at the end of the year)										
5. Gross fixed assets	1,153.3	1,529.9	4,219.1	4,905.3	3,994.9	4,412.8	2,710.3	3,019.0	1,632.7	2,315.8
6. Less depreciation	673.4	564.0	2,134.6	2,352.2	1,977.7	2,183.7	1,809.6	1,573.5	610.8	745.0
7. Net fixed assets (5-6)	479.9	965.9	2,094.5	2,553.1	2,017.2	2,229.1	900.7	1,445.5	1,021.9	1,570.8
8. Current assets (i+ii+iii)	1,375.0	1,613.7	3,992.3	4,625.6	3,706.1	4,450.5	3,281.5	4,255.0	2,285.8	3,054.5
(i) Inventories	769.7	898.1	2,405.0	2,725.2	1,694.2	2,052.2	1,419.0	1,818.5	1,193.1	2,032.0
(ii) Receivables and loans and advances	494.1	584.8	1,452.7	1,773.9	1,859.3	2,257.2	1,675.1	2,180.9	1,080.5	994.9
(iii) Others	111.2	130.8	134.6	126.5	152.6	141.1	187.4	255.6	12.2	27.6
9. Other assets	118.6	140.7	91.3	91.3	455.0	451.0	132.5	172.7	24.0	24.0
Total: Liabilities (1 to 4) or Net assets (7 to 9)	1,973.5	2,720.3	6,178.1	7,270.0	6,178.3	7,130.6	4,314.7	5,873.2	3,331.7	4,649.3
Value of production and other income										
10. Sales/income net of excise duty, discounts and selling commission	2,878.4	3,050.5	8,202.3	8,824.0	5,744.1	7,149.2	6,653.1	7,794.4	5,208.5	6,291.3
11. Increase in stock of finished goods and work in progress	143.0	104.5	356.3	315.0	250.9	300.7	—28.3	208.4	114.4	503.9
12. Value of production (10+11)	3,021.4	3,155.0	8,558.6	9,139.0	5,995.0	7,509.9	6,624.8	8,002.8	5,322.9	6,795.2
13. Other income	86.5	103.0	101.1	73.5	932.1	399.6	96.6	162.2	69.3	32.3
Expenditure										
14. Materials, stores and other mfg. expenses	1,532.2	2,045.1	5,597.7	6,466.3	4,258.0	5,213.0	4,582.7	5,854.9	3,843.8	4,854.4
15. Current repairs	149.8	56.5	48.5	49.2	82.4	96.1	129.8	152.4	71.1	108.9
16. Salaries and wages	586.4	683.5	1,530.5	1,561.6	913.2	1,105.6	872.1	1,044.8	772.2	1,055.7
17. Welfare expenses	95.5	90.3	91.6	93.2	129.0	103.0	29.2	37.7	52.1	71.4
18. Managerial remuneration	—	—	—	—	—	—	1.3	0.4	0.1	0.1
19. Other expenses	353.4	207.1	475.1	494.2	411.7	463.1	302.7	330.8	157.9	179.1
20. Depreciation	81.5	67.7	197.2	231.1	237.1	276.2	180.7	134.1	103.0	139.2
21. Other provisions	—	—	—	—	—	—	—	—	—	—
22. Operating profit (12+13)-(14 to 21)	309.1	107.8	719.1	316.9	885.7	652.5	622.9	609.9	392.0	418.7
23. Interest	49.2	1.1	394.1	625.6	311.8	429.0	240.8	360.5	188.2	296.4
24. Tax provision	151.8	—	32.0	—	146.1	4.2	207.0	80.0	—	—
25. Profit after tax (22-23-24)	108.1	6.4	293.0	-308.7	427.8	219.3	175.6	169.4	203.8	122.3
Appropriations										
26. Dividends (i+ii)	71.7	52.2	112.0	1.9	142.6	142.6	93.3	93.3	35.8	35.8
(i) Equity	71.7	52.2	110.1	—	142.6	142.6	92.5	92.5	34.8	34.8
(ii) Preference	—	—	1.9	1.9	—	—	0.8	0.8	1.0	1.0
27. Profit retained (25-26)	36.4	-45.8	181.0	-310.6	285.2	76.7	82.3	76.1	168.0	86.5
Total: Value of production and other income (12+13) or Expenses and appropriations (14 to 22)	3,107.9	3,258.0	8,659.7	9,212.5	6,917.1	7,909.5	6,721.4	8,165.0	5,392.2	6,827.5
Operational indicators (per cent)										
(a) Net worth/total net assets	47.7	40.4	29.5	21.0	44.7	40.2	33.2	32.3	26.8	22.3
(b) Inventories/net sales	26.7	29.4	29.3	30.9	29.5	28.7	21.3	23.3	22.9	32.3
(c) Operating profit/net sales	10.7	3.5	8.8	3.6	15.4	9.1	9.4	7.8	7.5	6.7
(d) Operating profit/total net assets	15.7	4.0	11.6	4.4	14.3	9.2	14.4	10.4	11.8	9.0
(e) Profit after tax/net worth	11.5	0.6	16.1	—	15.5	7.7	12.3	8.9	21.2	11.8
(f) Equity earning/equity capital	33.1	2.0	44.9	—	52.8	27.1	32.1	31.0	87.4	52.3
(g) Equity dividend	22.0	16.0	17.0	—	17.6	17.6	17.0	17.0	15.0	15.0
(h) Equity dividend coverage (No. of times)	1.5	0.1	2.6	—	3.0	1.5	1.9	1.8	5.8	3.5
(i) Paid-up value per equity share (Rs.)	100.00	10.00	100.00	100.00	125.00	125.00	100.00	100.00	100.00	100.00
(j) Market price of an equity share (Rs.)	209.00	13.50	245.00	160.49	32.00	302.50	241.50	191.50	235.50	130.00
(k) Gross yield	10.5	11.9	6.9	—	5.6	7.3	0.7	8.9	6.4	11.5
(l) Gross fixed assets formation	5.7	32.7	19.4	6.0	2.3	10.5	10.3	11.4	23.3	41.8
(m) Debt/equity	0.34:1	0.48:1	0.51:1	0.68:1	0.28:1	0.42:1	0.31:1	0.29:1	0.64:1	0.87:1

Notes: ... Category not applicable

... Amount/Percentage is negligible

— Amount is nil

N. Q. Not quoted

N. A. Not available

EQUITIES

THE WEEK'S PRICE RANGE

(Compiled by
Commerce Research Bureau)

hurdles in settlement

Bombay, August 2

After the consistent fall since the end of May, equities staged a smart recovery on emergence of short-covering and fresh buying support at the lower levels. Although the best levels could not be held till the close due to partial profit-taking, the closing levels still indicated small-to-impressive gains on a broad front. Activity was brisk and the closing under-tone was cheerful.

Apart from the technical factors, the buying spree developed following reports that the 18th settlement would have a smooth sailing contrary to the earlier fears of a payment crisis. At the time of the settlement, three brokers had even declared defaulters by BSE. The revival of the monsoon in the east parts of the country aided the recovery process. The buying support from financial institutions also accelerated the rally.

In 'A' group, ACC was the star performer on sustained buying support on the possibility of good working results for the year ending July 31, 1982 and also a market hike in the dividend from 10 per cent paid last year. The price was marked up significantly from Rs 40 to Rs 324. Reliance was supported by Rs 17.50 to Rs 158 on improved buying support.

TELCO firmed up by Rs 18 to Rs 410 on hopes of early clearance for the expansion from 56,000 vehicles to 87,000 vehicles per annum. Marketmen also hoped that the government might relax the credit squeeze for the hire purchase of commercial vehicles. Another firm feature was Tata Steel with an improvement of 12 pints to Rs 322 on influential support. Baroda Rayon hardened by Rs 6 to Rs 386 on hopes of early government approval for the proposed bonus issue of one-for-two.

Ashok Leyland, Bombay Dyeing, SFC, Hindustan Aluminium, Hindustan Motors, Indian Dyeing, Indian Rayon, Garware, Ispat, Mahindra and Mahindra, Larsen, MICO, NOCIL, PAL, Standard and Zenith Steel ruled steady-to-better. S.I. Viscose found buyers at higher level on the eve of board meeting on August 2 to increase dividend for the year

	Closing quotations 24-7-82	High	Low	Closing quotations 31-7-82		Closing quotations 24-7-82	High	Low	Closing quotations 31-7-82
"A" Group Equity Shares									
	Rs.	Rs.	Rs.	Rs.		Rs.	Rs.	Rs.	Rs.
A. C. C. (100)	284.00	328.00	239.00	324.00	German Remedies (10)	38.00	36.00	35.00	36.00
Ashok Leyland (10)	38.00	43.00	38.50	40.00	Gokak (10)	13.50	15.25	13.50	15.25
Ballarpur Ind. (10)	40.00	45.00	40.50	43.50	Great E. Shipping (10)	14.50	15.75	14.50	15.50
Baroda Rayon (100)	380.00	391.00	380.00	386.00	Gujarat Alkali (10)	40.75	40.50	41.00	45.00
Bihar Alloy (10)	11.50	13.00	12.00	12.50	Guj. Narmada (10)	11.50	12.00	11.65	12.00
Bombay Dyeing (25)	67.00	71.00	69.00	71.00	Gujarat Steel Tubes (100)	265.00*	280.00	265.00	280.00
Century (100)	735.00	760.00	732.00	735.00	Herdillia Chem. (10)	21.00	21.50	21.00	21.50
Colgate (10)	84.00	86.00	83.00	86.00	Hind Brown (100)	255.00	265.00	255.00	265.00
E. I. Hotel (10)	19.25	19.50	19.00	19.00	Hind Ferrodo (10)	33.00*	—	—	33.00*
Garware Nylon (10)	49.50xd	43.00	41.00	42.00	Hindustan Sugar (100)	188.75	192.50	188.75	188.75
Guj. State Fert. (100)	412.00	418.00	411.00	413.00	Hindustan Spg. (250)	167.50	172.50	170.00	172.50
Gwalior Rayon (10)	43.75	50.25	48.50	49.50	Hoechst Dyes (25)	23.00	24.50	23.75	24.00
Hind. Alum. (10)	30.50	32.00	30.50	31.00	Idl. Chemicals (10)	15.00	15.50	14.75	15.25
Hind. Lever (10)	51.50	55.00	5.50	55.00	Indian Explosive (10)	20.25	20.50	20.00	20.50
Hindustan Motor (10)	26.50	27.50	26.50	26.50	Indian Hotels (10)	54.50	58.00	54.00	56.00xd
Indian Dyestuff (100)	212.50	214.75	214.00	215.00	Industrial Cable (10)	30.00*	—	—	30.00*
Indian Organic (10)	29.00	30.00	29.00	29.00	Ingersoll Rand (10)	148.00	164.00	146.00	162.00
Indian Rayon (10)	87.50	90.00	86.50	89.00	J. K. Cotton (10)	12.25	12.50	12.25	12.50
ITC Ltd. (10)	30.50	31.00	30.00	30.00	Jayant Paper (100)	135.00	135.00	135.00	135.00
J. K. Synthetics (10)	58.50	62.00	54.50	62.00	Jyoti (10)	21.00	23.00	22.00	23.00
Larsen & Toubro (10)	48.50	52.00	49.50	51.00	Kamani Eng. (10)	66.00	67.00	65.00	66.50
Mahindra & Mahindra (10)	42.00	45.50	42.50	45.00	Khand, Ferro (100)	120.00*	130.00	122.50	130.00
Metal Box (10)	12.00	15.00	12.50	15.00	Khatau (100)	200.00	205.00	197.50	197.50
Modi Rubber (10)	27.50	29.00	28.00	28.00	Kirloskar Cummins (100)	605.40	625.00	605.00	625.00
Motor Industries (100)	241.25	246.25	240.00	246.25	Kirloskar Oil (10)	23.50	22.50	20.50	22.50
MRF (10)	22.75	24.50	23.50	24.50	Kohinoor Mills (100)	53.00*	—	—	53.00*
Mukand Iron (10)	25.25	26.00	25.00	25.50	Laxmi Vishnu (100)	40.00	—	—	40.00*
National Organic (100)	174.50	178.00	174.00	178.00	Madura Coats (10)	15.00	18.50	15.00	18.50
Nirlon (10)	37.00	38.75	37.00	38.50	Mafatal Eng. (100)	108.00	119.00	108.00	117.00
Premier Auto (100)	330.00	347.00	329.00	331.00	Mafatal Ind. (125)	302.50	304.75	300.00	303.75
Reliance Textile (10)	141.50	163.00	141.50	158.00	Mafatal Fine (100)	160.00	163.75	157.50	163.75
Scindia (20)	13.00	13.25	12.75	12.75	Maharashtra Sugar (50)	34.00	36.00	33.00	36.00
Shriram Fibres (10)	46.50	50.00	46.75	48.00	Mahindra Uginie (10)	42.00	47.00	42.00	45.00
Siemens India (10)	36.00	36.00	35.50	35.50	Morajee (100)	185.00*	190.00	175.00	190.00
Sirpur Paper (10)	21.75	22.75	21.50	22.75	Mysore Cement (10)	31.00	35.00	31.00	35.00
South India Viscose (100)	202.50	215.00	202.50	215.00	National Rayon (100)	330.00	335.00	320.00	320.00
Southern Petro (10)	13.50	14.50	13.25	13.75	New Gr. Eastern (100)	70.00*	—	—	70.00*
Standard Mills (100)	301.00	309.00	301.00	304.00	New Stand. Eng. (100)	100.00	110.00	100.00	107.50
Straw Products (10)	39.50	46.00	41.00	45.00	Otis Elevator (10)	28.50	31.00	29.00	30.00
Svadeshi Mills (100)	141.00*	—	—	141.00*	Pfizer (10)	23.25	24.00	23.25	24.00
Tata Chemicals (10)	49.00	50.50	49.00	50.00	Phaltan Sugar (50)	26.00*	—	—	26.00*
Tata Eng. & Loco. (100)	392.00	413.00	388.00	410.00	Podar Mills (10)	4.50	—	—	4.50*
Tata Oil (25)	53.00	54.00	53.00	54.00	Polychem (50)	52.00*	52.00	46.00	46.00
Tata Steel (100)	310.00	327.00	311.00	322.00	Polyolefins Ind. (100)	270.00	272.50	267.50	270.00
Volta* (100)	239.00	245.00	237.00	245.00	Premier Constr. (60)	85.00	86.00	84.00	86.00
Zenith Stee pin* (10)	42.50	46.50	42.00	45.00	Raghuvanshi (100)	122.50*	—	—	122.50*
Zuari Agro (10)	20.00	22.50	20.00	21.75	Rallis India (100)	167.50	172.50	167.50	170.00
					Raymond Wool (10)	35.00	36.00	35.00	36.00
					Rohit Pulp (100)	127.50*	150.00	127.50	150.00
					Sandoz (10)	27.00	—	—	27.00*
					Sandvik Asia (100)	300.00	315.00	300.00	315.00
					Saurashtra Cement (100)	132.50*	132.50	130.00	130.00
					Shri Dig. Cement (100)	220.00	235.00	217.50	235.00
					Shree Niwas (100)	75.00*	—	—	75.00*
					Shree Ram (100)	70.00*	—	—	70.00*
					Simplex (50)	60.00*	—	—	60.00*
					SLM-Maneklal (100)	150.00	150.00	147.50	150.00
					Special Steels (100)	75.00*	82.00	75.00	82.00
					Stretch Fibres (10)	8.50	—	—	8.50*
					Surat Electric (100)	140.00	—	—	104.00*
					Svadeshi Polytex (10)	14.50	16.00	15.00	15.00
					Swan Mills (100)	130.00*	—	—	130.00*
					Synthe & Chem (100)	77.00*	87.00	77.00	84.00
					Tata Hydro (100)	110.00	—	—	110.00*
					Tata Mills (25)	19.00*	19.00	19.00	19.00*
					Tata Power (100)	111.00*	111.50	111.50	111.50
					Tata Yodogawa (100)	130.00	135.00	130.00	132.50
					Tata Finlay (10)	10.50	11.25	10.50	11.25
					Texmaco (10)	41.00	—	—	41.00*
					United Carbon (100)	145.00*	160.00	145.00	160.00
					Vulcan Laval (10)	26.50*	—	—	26.50*
					Widom & Naga (10)	27.00	—	—	27.00
					Warner Hitec (10)	27.00	—	—	27.00*
					West Coast Paper (100)	90.00*	90.00	90.00	90.00
					Wimco (10)	11.00	11.00	10.75	11.00

Notes: Figures within brackets indicate the paid-up value of shares. *xd-Rx-dividend *cd-Cum-dividend *F=Foreign *G=Govt. *P=Public *S=State *M=Minority *A=All India *I=Indian *F=Foreign *G=Govt. *P=Public *S=State *M=Minority *A=All India *I=Indian

(a) An asterisk mark after a quotation indicates the closing prices of the last official trading and not of the day.

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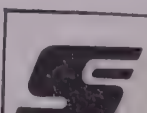
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Apparel



Surat
Cotton
Mills

COMMODITIES

Cotton prices firm

Bombay, August 2

There was a perceptible tendency for cotton prices to firm during the past week. The sentiment has been partly influenced by apprehensions about the crop estimate owing to the erratic monsoon. Secondly, there is, of course, the hope that the textile strike should come to an end soon enough. Whether this is wishful thinking time alone will tell.

Reports from Coimbatore indicate that the spinning mills and the exporters in the south have been concerned over the steady fall in the shipment of cotton yarn. As against 15.74

million kg of yarn exported in 1977, the exports had declined to just 5.18 million kg in 1981. The UK and Europe are the main buyers of Indian cotton yarn. Pakistan, Hongkong and South Korea are India's competitors in the west. Indian yarn is being priced out, it is reported.

Meanwhile, the Maharashtra State Co-operative Marketing Federation is understood to have negotiated deals for the export of Varalaxmi cotton. The quantity is mentioned around 12,500 bales and the buyers are in East Asia and Europe.

The following has been the

trend of prices of some of the leading varieties

	(Rs per candy)	
	July 29	July 22
Digvijay	4,300-4,400	4,400-4,500
Kalyan	3,500-3,650	3,400-3,600
Saurashtra (CO2)	3,500-3,350	3,700-3,800
Maharashtra H4	4,800-4,850	4,800-4,850
Maharashtra Y1	4,400	4,400
Maharashtra L107	4,700	4,750
MU - Gaur	5,000-5,200	4,600-4,900
Shankar 4	4,800-5,000	4,600-5,000
Jaydhar	3,600-3,800	..

Mixed trend in yarn

Bombay, August 2

A mixed trend was noticed in the local yarn market during the past week. The prices of 150D NRC, 120D NRC and 100D SIV rose by 56 paise, Rs

1.66 and Rs 2.20 to Rs 55.62, Rs 59.74 and 70.48 respectively. The price of 120D CR declined by 55 paise to Rs 58.37 while the prices of 150D CR and 150D acetate remained unchanged at Rs 54.23 and Rs 49.01 respectively.

Oilseeds: In better form

Bombay, August 2

The oilseeds market was in a better form during the past week due to limited arrivals of groundnut and scattered export inquiries for castor oil. Advices from producing centres were also encouraging. Groundnut Karad bold, Saurashtra bold and Saurashtra quality improv-

SANDOZ (INDIA) LIMITED

Registered Office :

SANDOZ House
Dr. Annie Besant Road
Worli
Bombay 400 018

GENERAL NOTICE

It is hereby notified for the information of the public that SANDOZ (India) Limited proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1952 for approval of the shifting of a part of the manufacturing facilities for the production of drugs and medicines from the present location at Kolshet, District Thane, Maharashtra to Taluka Shahapur, District Thane, Maharashtra.

Other particulars of the proposed undertaking are as under :—

- | | |
|--|---|
| (i) Name of the proposed undertaking | Same as existing undertaking namely SANDOZ (India) Limited |
| (ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking | <p>The Company is managed by the Managing Director and Deputy Managing Director under the superintendence, control and direction of the Board of Directors. The names of the Directors are :</p> <p>Mr. S. Ranganathan (Chairman)</p> <p>Mr. S. P. Acharya</p> <p>Prof. Dr. B. Berde</p> <p>Dr. R. A. Boissonnas</p> <p>Mr. Y. H. Desai</p> <p>Dr. M. Moret</p> <p>Mr. D. S. Patel</p> <p>Mr. B. Stalder</p> <p>Dr. H. Winkler</p> <p>Managing Director :</p> <p>Dr. J. N. Banerjee</p> <p>Deputy Managing Director :</p> <p>Mr. W. Staub</p> |

- (iii) Capital structure of the applicant person or authority and of the proposed undertaking

Authorised capital

3,500,000 Equity shares of Rs. 10/- each Rs. 35,000,000

Issued & Subscribed Capital
3,500,000 Equity shares of Rs. 10/- each Rs. 35,000,000

- (iv) Proposed location of the new undertaking

Taluka Shahapur, District Thane, State Maharashtra.

- (v) Brief outline of the cost of project, the scheme and source of finance

Estimated cost of project Rs. 50,000,000

Source of finance
Incentives including sales tax loan from the State Industrial And Investment Corporation of Maharashtra Ltd. Rs. 20,000,000

Internal accruals Rs. 30,000,000
Rs. 50,000,000

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

SANDOZ (INDIA) LIMITED
(S. D. WAGH)
Company Secretary

Dated at Bombay this
2nd day of August, 1982

FORM II-A OF RULE 4A(I) OF M.R.T.P. ACT, 1969

NOTICE

It is hereby notified for the information of the Public that THE INDIAN RAYON CORPORATION LIMITED, Registered office at Veraval (Gujarat State) proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under Sub-section (2) of Section 22 of the Monopolies & Restrictive Trade Practices Act, 1969 for approval of the establishment of a new undertaking for production, supply and distribution of 20,000 tonnes of Carbon Black of various grades and types, and with an estimated turnover of Rs 20.00 crores. Other particulars of the proposed new undertaking are as under :

- i) Name of the pro- THE INDIAN RAYON CORPN.
posed : LTD.,
undertaking (CARBON BLACK PROJECT)
- ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body Corporate, furnish details of its management structure together with those of the proposed undertaking.

The Company is 1. Shri Aditya Vikram Birla managed by the 2. Shri Hemantkumar J. Vaidya Board of Directors. 3. Shri Rawal Madan Singh The new proposed 4. Shri Dilip S. Dahanukar undertaking will al- 5. Shri Ravi Shankar S. Bhatt so be managed by the 6. Shri Jean L. Duplant same Board of Direc- 7. Shri Behari Lal Shah tors.

- iii) Capital structure of the applicant person or authority, and of the proposed undertaking :

Authorised :

	Nos.	Rupees
Equity shares of Rs 10/- each	60,00,000	6,00,00,000
Preference Shares of Rs 100/- each	4,00,000	4,00,00,000
		10,00,00,000

Issued, Subscribed & fully paid up :

Equity Shares of Rs 10/- each	43,77,060	4,37,70,600
Preference Shares of Rs 100/- each :		
'A' Series — 10%	66,520	66,52,000
'B' Series — 11%	18,430	18,43,000
'C' Series — 13.5%	22,776	22,77,600
		5,45,43,200

- iv) Proposed location of the new undertaking : RENUKOOT, District Mirzapur, State of Uttar Pradesh.

- v) Brief outline of the cost of the project, the Scheme and source of finance :

Cost of the Project :

Particulars	Rs in Crores
Land & Development	0.50
Building	1.50
Plant & Machinery	9.00
Others — including margin for working capital	4.00
Total	15.00

Scheme & Source of Finance :

Foreign Currency loan	6.00
Short term loans from Banks/Institutions	3.60
Internal Accruals	5.40
Total	15.00

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of his interest therein.

for THE INDIAN RAYON CORPORATION LTD.,

B. L. SHAH
DIRECTOR

Dated : 24th of July, 1982.

POLYOLEFINS INDUSTRIES LIMITED

FORM 1-A

(See rule 4A (1))

Form of General Notice to be given to the members of the public before giving a notice to the Central Government under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969.

NOTICE

It is hereby notified for the information of the public that POLYOLEFINS INDUSTRIES LIMITED has given to the Central Government, in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for the recognition of increase in the installed capacity in excess of licensed capacity. Brief particulars of the proposal are as under :

- (i) Name(s) of person(s) / : POLYOLEFINS
body corporate owning INDUSTRIES LIMITED
the Undertaking Mafatlal Centre,
Nariman Point,
Bombay 400 021.
- (ii) Capital structure of the : AUTHORISED Rs
applicant undertaking : CAPITAL
Equity 9,65,14,300
Unclassified 5,34,85,700
Total 15,00,00,000
Issued and Subscribed
Capital :
Equity 9,65,14,300

- (iii) Details of the proposed substantial expansion :

(a) Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered. : NOT APPLICABLE

(b) In the case of substantial expansion of existing activities :

- (i) Names of goods : High Density Polyethylene
(ii) Capacity before : Licensed/Installed
expansion Capacity 30,000 MTA

- (iii) Expansion : Re-endorsement of Indus-
proposed trial License to the extent of 46,970 MT based on the highest production achieved by the Company during the Company's financial year ending 31/12/1981 or to the extent of 42,309 MT based on the highest production during the financial year 1981-82, as the case may be.

- (iv) Location of the : Thane-Belapur Road,
Project for sub- Thane, Maharashtra.
stantial expansion

- (v) Brief outline of : No additional investment
the cost of the involved.
project, the scheme and source of finance

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of his interest therein.

POLYOLEFINS INDUSTRIES LIMITED
P. J. DESAI
Secretary

Dated this 5th day of August, 1982.

by Rs 10 each to Rs 620, 625 and Rs 625 per 100 kg respectively. Its oil moved up Rs 1.46 to Rs 142.38 per 10 in view of the limited supplies on account of seasonal factors.

Castorseed Madras small and unpur bold advanced by Rs 4 each to Rs 346 and Rs 336 per 100 kg. Castor commercial oil hardened by a rupee to Rs 75 and castor BSS oil by Rs 1.75 to Rs 81.25 per 10 kg.

In view of hardening trend most of the oils, linseed bold also firmed up by Rs 2.08 to Rs 115.44 per 10 kg. Linseed bold, however, was neglected at the previous level of Rs 460.

A better trend was noticed in cakes. Groundnut expeller and cottonseed rose by Rs 25 each to Rs 1,775 and Rs 1,475 per tonne.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils :

	30-7-1982	22-7-1982
nut		
Karad bold	620.00	610.00
nut oil	142.38	140.92
Cast. Md. Sm.	346.00	342.00
Cast. oil com.	75.	74.00
Cast. oil BSS	81.25	79.50
Linseed bold	460.00	460.00
Linseed oil	115.44	113.36

Gold quiet, silver down

Bombay, August 2

The price of gold was more or less steady while that of silver decreased in the Bombay bullion market during the past week. Standard mint gold opened at Rs 1,660 per 10 gms and closed at Rs 1,665 per 10 gms. Ready silver (.999 fineness) opened at Rs 2,625 per kg and closed lower at Rs 2,595 per kg.

Money easy

Bombay, August 2

Conditions in the Bombay short-term money market continued to be easy during the past week. Interest rates opened at 4.5 per cent and eased to the week's low of 3.5 per cent on July 30. However, the rates firmed up once again to close at five per cent.

Aggregate deposits cross Rs 46,000-crore mark

Bombay, August 2

With an increase of Rs 213.83 crores, the aggregate deposits of all scheduled commercial banks crossed the Rs 46,000-crore mark to reach Rs 46,045.19 crores during the week ended July 16, 1982. Bank credit expanded by Rs 167.17 crores to Rs 30,570.67 crores. The balances of banks with the Reserve Bank of India (RBI) increased by Rs 42.11 crores to Rs 4,984.44 crores while their borrowings from the RBI decreased by Rs 144.05 crores to

NOTICE

It is hereby notified for the information of the public that the Raymond Woollen Mills Limited proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-Section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities. Brief particulars of the proposal are as under :—

- Name(s) of person(s)/body Corporate owning the undertaking
- Capital Structure of the applicant undertaking

The Raymond Woollen Mills Limited

Share Capital of the applicant company

Authorised

		Rs Lakhs
25,000	6.5% (Taxable) Cumulative Redeemable Preference Shares of Rs 100 each.	25.00
1,00,000	11% (Taxable) Cumulative Redeemable Preference Shares of Rs 100 each.	100.00
97,50,000	Equity Shares of Rs 10 each.	975.00
		<hr/> 1100.00 <hr/>

Issued and Subscribed

25,000	6.5% (Taxable) Cumulative Redeemable Preference Shares of Rs 100 each.	25.00
1,00,000	11% (Taxable) Cumulative Redeemable Preference Shares of Rs 100 each.	100.00
74,11,200	Equity Shares of Rs 10 each.	741.12
		<hr/> 866.12 <hr/>

- Details of the proposed substantial expansion :

- Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered.

Not applicable.

- In the case of substantial expansion of existing activities—

- Names of goods
- Capacity before expansion
- Expansion proposed

Fabrics (Wearable)

196 Weaving Looms.

Replacement of 52 Dobbross Shuttle Weaving machines by 40 Sulzer Weaving machines and 12 shuttleless Rapier Looms. This will result in some increase in production though licensed capacity will remain the same.

Thane, Maharashtra.

- Location of the project for substantial expansion

- Brief outline of the cost of the project, the scheme and sources of finance

Cost of the Project :

	Rs Lakhs
Plant and Machinery	1344.22
Source of Finance	
Foreign Currency Loans from Commercial Banks	840.14
Rupee Term Loans from Financial Institutions/Banks	150.00
Internal Sources	354.08
	<hr/> 1344.22 <hr/>

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

for THE RAYMOND WOOLLEN MILLS LIMITED

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A. M. BHAT
Secretary

INDIAN ECONOMY: BASIC INDICATORS

By Commerce Research Bureau

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	During the week ended				Week	Percentage variation over		
	July 10, 1982	July 3, 1982	June 12, 1982	July 11, 1981		Month	Year	Two years
Manufactured products	273.2	272.6	270.9	275.9	0.2	0.8	-1.0	4.9
Primary articles	277.6	276.8	268.2	270.9	0.3	3.5	2.5	18.6
Fuel, power, lubricants, etc.	454.2	455.2	446.5	433.4	—	1.9	5.0	28.9
All commodities	290.4	289.8	284.6	287.1	0.2	2.0	1.1	12.9

Money and Banking

	During the week ended				Week	Percentage variation over		
	July 16, 1982	July 9, 1982	July 18, 1982	July 17, 1981		Month	Year	Two years
Money supply (M3) (b)	65,812(a)	65,804	64,776	58,647(a)	—	1.6	12.2	33.8
Bank credit	30,571	30,404	29,865	26,789	0.5	2.4	14.1	37.2
Aggregate deposits	46,045	45,831	44,726	40,691	0.5	2.9	13.2	37.9
Foreign exchange reserves (a) ..	4,046	3,523	3,872	4,808	14.8	4.5	-15.8	-22.4

MONTHLY INDICATORS

	Unit	Latest month	Month	Amount/ Index	Previous month	Percentage variation over previous month	Recent trend (per cent)(c)
Industrial production (crude index) ..	1970=100	June	1982	148.5(a)	161.9(a)	-8.3	6.8
Electricity generation (public utilities)	Million kwh	June	1982	10,453	10,603	1.6	5.6
Exports	Rs. crores	January	1982	506	502	0.8	—
Imports	Rs. crores	January	1982	919	1,131	-18.7	—
Trade balance	Rs. crores	January	1982	-413	-629	—	—
Foreign exchange reserves (a) ..	Rs. crores	June	1982	3,803	3,987	-4.6	-19.7
Wholesale price index	1970-71=100	June	1982	284.9	278.3	2.4	0.7
Consumer price index for industrial workers	1960=100	May	1982	462	459	0.7	7.1
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	January	1982	179.3	178.4	0.5	9.7

ANNUAL INDICATORS

	Unit	1981-82 (CRB estimates)	1980-81	1975-76	1950-51	Percentage variation in 1980-81 over 1979-80	Annual rate of growth(%) between 1975-76 and 1980-81
Population	Crores	69.1	68.4 (d)	60.4	35.8	3.2	2.2(e)
Gross National Product (at market prices)	Rs. crores	1,38,000	1,25,744	73,907	9,503	17.5	11.2
Per capita GNP (at market prices) ..	Rupees	1,997	1,855	1,224	265	14.9	8.7
Real national income (Index)	1970-71=100	144.1	137.9	117.1	48.9	7.7	3.3
Real per capita income (Index)	1970-71=100	112.6	109.9	104.9	73.6	5.3	0.9
Agricultural production (Index triennium ending)	1969-70=100	139.3	135.2	124.8	58.5	15.4	1.6
Foodgrains production	Million tonnes	135.0	130.0	121.0	55.0	18.2	1.4
Industrial production (Index)	1970=100	166.3	154.0	119.7(f)	26.5(f)	4.0	5.2
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.0	30.0	18.6	0.18	0.7	10.0
Electricity generation (public utilities)	Billion kwh	122.9	111.6	79.2	5.3	6.7	7.1
Exports	Rs. crores	..	6,709	4,043	601	3.9	10.6
Imports	Rs. crores	..	12,484	5,265	650	38.4	18.6
Trade balance	Rs. crores	..	-5,775	-1,222	-49	—	—
Foreign exchange reserves*	Rs. crores	3,797	5,316	1,702	911	-6.8	25.6
Money supply (M3) (b)*	Rs. crores	62,281	55,445	22,286	2,336	18.5	20.0
Bank credit*	Rs. crores	29,599	25,371	10,877	547	17.8	18.5
Aggregate deposits*	Rs. crores	43,750	37,988	14,155	881	19.6	21.8
Wholesale price index (average)	1970-71=100	280.3	257.2	173.0	47.5	18.2	9.0
Consumer price index for industrial workers*	1960=100	..	420	286	..	12.6	8.0
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	..	162	93	..	13.3	11.7

Notes: (a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year. (d) As on March 1, 1981 as revealed by 1981 Census. (e) Between 1971 Census and 1981 Census. (f) Figures relate to 1975 and 1950 respectively.

* Financial year-end data

** Calendar year-end data

(—) = Nil or negligible

(..) = Not available

LETTERS

ONGC could have averted Bombay High blow-out

SIR, — Your report on the blow-out of an oil well at Bombay High (Commerce, August 7, 1982) said the ONGC did not appear to be prepared for such a blow-out. Reports in other papers, however, went much further and some held errors on the ONGC's part to be responsible for the blow-out. Experts of the offshore industry in Bombay and Dehradun are reported to have said that the Commission erred in undertaking to drill an exploration-cum-development well on a production platform.

Exploration wells are seldom drilled on production platforms. In fact, such a practice is unknown in the offshore oil industry. ONGC apparently took on the task because it wanted to eliminate the need for drilling a separate exploration well to assess the gas zone in the fifth well near the SJ platform. Of the 17 exploration wells the commission has drilled in Bombay High so far, none was combined with development wells.

ONGC is reported to have drilled the fifth well in SJ platform at a depth of 1,400 metres and lowered casing pipe up to 900 metres depth. After penetrating the main oil zone it went further down to 1,660 metres to probe if there was any oil or gas zone below the main zone.

Unfortunately, the ONGC did not calculate the risks of such an operation. If the commission had drilled a separate well for exploring an oil and gas zone below 1,400 metres in the fifth well, the accident could have been averted.

As a result of the accident, ONGC will probably have to pay a higher insurance premium. Lloyds of London, reinsurers of ONGC's platforms and rigs to the prime insurer, United India Insurance Company, is now likely to raise its premium rates.

R. Seshadri
CALCUTTA

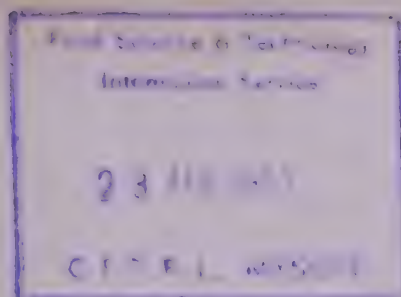
Rational duty on fridges, airconditioners

SIR, — The high incidence of direct and indirect taxes on the refrigeration and airconditioning industry has affected the market for these products because the middle classes find it difficult to purchase refrigerators and industrial consumers find it increasingly expensive to use airconditioners in offices and industry.

Excise duty on components is as high as 131.25 per cent. This prompts consumers to import components from abroad which results in the wastage of scarce foreign exchange which should be spent on imports that are really necessary. The excise duty applicable to other electrical appliances like mixers, washing machines and irons under the tariff clause 33 C should be made applicable to components for the refrigeration and airconditioning industry.

Similarly, sales tax on airconditioning and refrigeration equipment which is as high as 20 per cent in some states should be brought down. Excise duty on a small refrigerator today is around 42 per cent and on a large refrigerator as high as 84 per cent. The excise levy makes refrigerators very expensive.

H. L. Sharma



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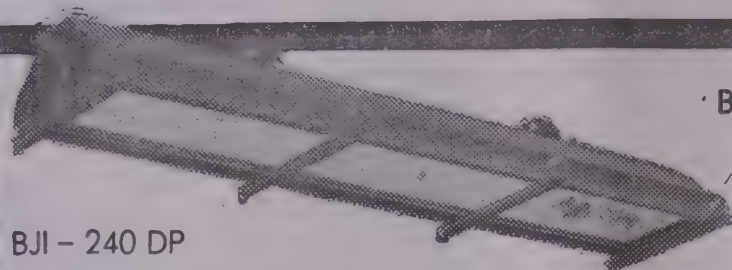
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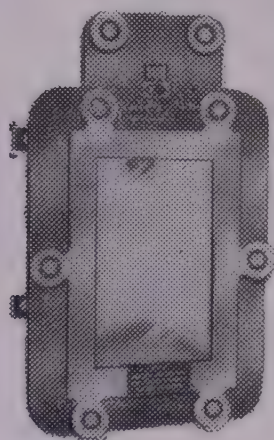
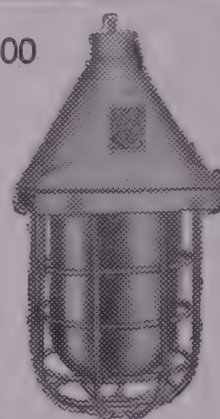
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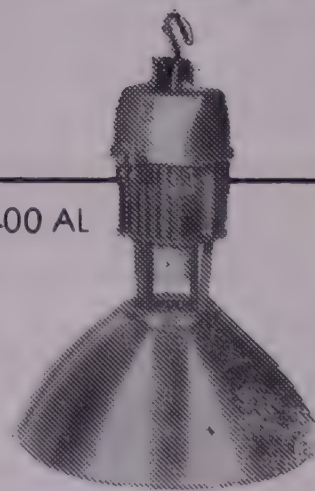


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COMMERCE

Vol. 145 No. 3714 August 14, 1982

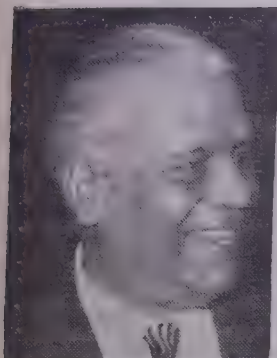
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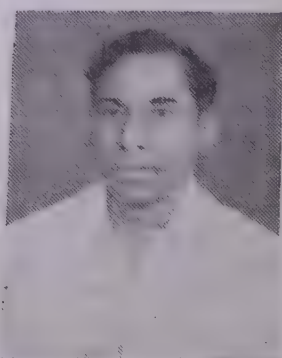
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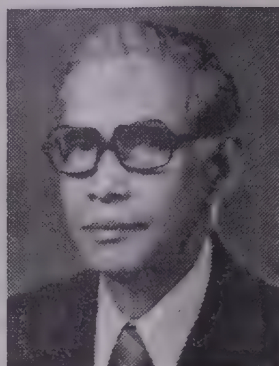
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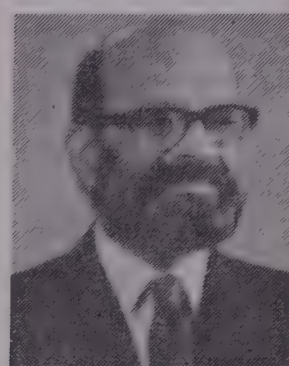
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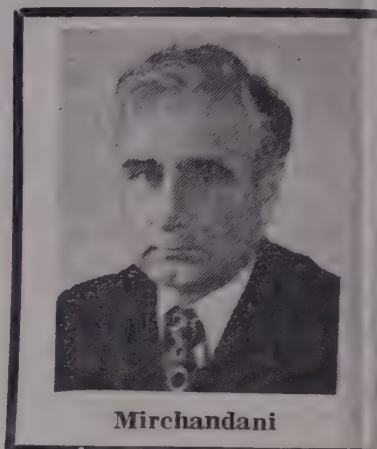
Ramaiah



Ouseph



Lal



Mirchandani

Mr J. K. Bhuwalka has been re-elected president of the Andhra Pradesh Chamber of Commerce for the year 1982-83. Mr L. V. Ramaiah and Mr V. Ravindranath were elected vice-presidents. The vice-president from the capital of Andhra Pradesh is Mr O. Swaminatha Reddi.

Mr L. V. Ramaiah of M/s Vinod Solvextracts Private Ltd, Madras, has been re-elected president of the Solvent Extractors' Association of India for 1982-83. Mr Ramaiah has been actively associated with the solvent extraction industry for many years.

Mr N. P. Ouseph, a well-known businessman of Kerala, has been elected president of the Indian Chamber of Commerce, Cochin, for 1982-83.

Mr M. M. Lal, president of Eicher Goodearth Ltd, has been appointed honorary consul general for the Grand Duchy of Luxembourg in India.

Bank of India has promoted nine executives as deputy general managers. They are : Mr J. M. Desai, Mr N. C. Parikh, Mr R. C. Tolat, Mr K. Y. Pandya, Mr K. R. Registrar, Mr S. P. Wagh, Mr B. I. Joshipura, Mr N. T. Bhavnani and Mr K. L. Samant.

Mr Basudeo Agarwal and Mr Prakash Podar have been elected president and vice-president, respectively, of the Bharat Merchants' Chamber for 1982.

Mr Nandlal C. Shah, Mr Pravinchandra K. Shah and Mr Bhagwatilal C. Sanghvi have been elected, respectively, president, senior vice-president and vice-president of the Bombay Metal Exchange Ltd.

DEATH

Mr I. T. Mirchandani, chairman and managing director of Advani-Oerlikon Ltd and managing director of Semiconductors Ltd, died in Bombay on July 30, 1982 following a brief illness. Mr Mirchandani, who was 56, had a brilliant academic career, obtaining a master's degree in electrical engineering from the US. Starting with just one electrode plant in Bombay in 1951, he made Advani-Oerlikon into a diversified group comprising electronics, reprography, management consultancy, computer services, and travel and tourism. The success of his group activities is ascribed to intensive emphasis laid by him on research and development. Mr Mirchandani was actively associated with the International Institute of Welding, Indian Institute of Welding and American Welding Society.

THE WEEK

The Union Government has decided to make spot purchases of high speed diesel to tide over the shortfall in the country. ★

India is likely to give Romania a loan of Rs 50 crores to enable Romania to meet a payments problem and boost trade between the two countries. ★

The Oil and Natural Gas Commission has asked the State Bank of India and Chase Manhattan of Hongkong to raise a \$ 53.5 million Eurocurrency loan for the purchase of three platforms from France. ★

The Union Government has approved 18 proposals for the setting up of joint ventures abroad in the first six months of 1982. ★

The Union Commerce Ministry has announced that the value of goods and services imported from Poland will be expressed in US dollars under the bilateral trade and payments agreement for 1981-85 signed by the two countries. ★

The Union Government has decided to release an additional 50,000 tonnes of free sale sugar for August. ★

The Soviet Union is likely to step up its purchases of cotton fabrics and textile products from India in the next year. ★

The Union Government has sanctioned Rs 2 crores for setting up a pilot project for tapping tidal power from the Gulf of Kutch at Kandla. ★

The Union Government has permitted large industrial houses and FERA companies to raise their equity holding in joint sector companies to over 25 per cent. ★

The Reserve Bank of India has given credit of Rs 11 crores to the Jute Corporation of India for its price support scheme in the current procurement scheme. ★

The Union Government has lifted the ban on the creation of fresh capacity in the following 10 industries in the north eastern region : wire drawing, aluminium conductors, copper and zinc based industries, thermo plastics, pesticides, soap manufacture, paraffin wax, slaked wax, steel pipes and tubes, and stainless steel based units. ★

Money comfortable

Conditions in the Bombay short-term money market were comfortable as of Monday (August 9, 1982). In the inter-bank call money section, both notified and commercial funds were renewed at five per cent. Fresh money was transacted at five per cent. The market closed at five per cent.

Towards a power famine

IF the erratic monsoon promises to bring down sizably our kharif production, it also threatens to make the power situation much more difficult than it is now. Unless the remaining weeks of the monsoon period bring in copious rainfall, many of the reservoirs, on which our hydro-electrical power stations are based, will not be full and this will mean further curtailment of power and further restrictions. Thermal power is the mainstay of our power system, accounting for nearly as much as 60 per cent of installed capacity, but hydel power also has a share of as much as 37.5 per cent. Its share in the generation of power in 1981-82 was still higher at 40.3 per cent and if this share is affected because the reservoirs are not full thermal power will not be able to make up the gap.

Over the last three decades there has been a sharp jump in power generating capacity from 2,300 mw in 1950 to 32,500 mw in March 1982. But it is equally true that, despite the heavy financial investments, plan after plan, there have been slippages in the power targets set before the country and power development has lagged far behind the industrial, agricultural and domestic requirements so much so that on the 36th Independence Day tomorrow, no part of the country will be free from power cuts. In fact in states such as Rajasthan, Orissa and West Bengal industrial wheels have almost ground to a halt. In Orissa a power cut of 60 to 66 per cent on 22 major industries, including the Rourkela steel plant, has crippled the industries; in the nearby West Bengal, the jute industry is working short hours and even the Durgapur steel plant had to suspend production for some days because of a drastic power cut by the Damodar Valley Corporation. The 440-mw units of the Rajasthan atomic power station are not working even for a change and the Government of India has been forced to appoint a committee to investigate the frequent failures of this station.

If Orissa, Rajasthan and West Bengal have been cited as states where there is a virtual famine of power, it is not because the other states are free of power cuts. In industrialised states of Gujarat, Maharashtra, Karnataka and Tamil Nadu power cuts of 30 per cent to as much as 50 per cent are in force. Restrictions in the use of power from four hours to as much as eight hours prevail in Bihar, Haryana, Jammu and Kashmir, Punjab and Uttar Pradesh. This is the grim picture that faces the country on the power front which is not brought out by aggregate statistical figures.

Power programmes have not suffered because of shortage of funds. Right from the First Plan the Gov-

ernment has laid great emphasis on the development of power and allocated large slices to it from out of the plan expenditure. Between the First Plan (1951-56) to the Fifth Plan (1974-79) investment in the power programme has totalled Rs 13,973 crores and the Sixth Plan actually proposes an outlay of Rs 19,265 crores on this sector. But physical targets have never been achieved and the shortfalls during the various plans have varied from 15 to 35 per cent and as much as 50 per cent in the Fourth Plan (1969-74) when a target of 9,260 mw had been set and the achievement was only 4,610 mw. The story will be repeated during the Sixth Plan period (1980-85). When the plan was framed it was ambitiously announced that nearly 20,000 mw of capacity would be added to the existing installed capacity of 31,000 mw. But in the first three years there has been a wide gap between the targets and achievements. As much as 11,800 mw of capacity was promised to be added during the first three years of the current plan but the achievement was expected to be only about 7,500 mw or a shortfall of as much as over one-third. But even this figure may not be achieved since in the first and the second year a capacity of only 4,000 mw has been added. If there have been slippages in the achievements of fiscal targets, capacity utilisation of the power projects has also been low. Over the past decades it has ranged only between 42 to 47 per cent and the norms set by several expert committees for the power system to generate at least 5,000 kwh per year per kw of installed power has never been achieved. Transmission losses too are very high, of the order of about 20 per cent. The states are very keen to guard the autonomy of the state electricity boards but it has not been impressed on these boards that autonomy and efficiency go hand in hand. Their failure to make the optimum use of the power generating capacity and to reduce the transmission and distribution losses means that the country has to pay heavily for these lapses. Of course, the state electricity boards have been complaining of poor quality of coal or its inadequate supplies or Bharat Heavy Electrical equipment being not of proper standard. These problems need to be looked into. But equally they must listen to BHEL's complaint that the boards lagged in maintenance and operational efficiency. It is significant that spokesmen of even private power equipment manufacturing companies fully support BHEL in this complaint. In the short-term there is no solution to avoid a continuing power shortage and the consequent industrial and agricultural losses unless electricity boards operate more efficiently.

EDITOR'S NOTEBOOK

Vadilal Dag

Brokers punished in UK

WHILE in India there seems to be considerable reluctance to curb the malpractices of brokers on the stock exchanges, in other countries there is no hesitation to punish severely any sharebroker found guilty. Thus in July, while the Bombay Stock Exchange was satisfied by declaring three brokers defaulters, overlooking the seriousness of their offence in seeking to rig the market, in the United Kingdom the Stock Exchange expelled four partners, including Mr David Garner, the senior partner, of the Manchester-based stockbrokers, Halliday Simpson and Company, after the ruling council had found them guilty of gross misconduct. Two associate members of the Manchester firm were also expelled from the Stock Exchange. Besides, other brokers were also given punishment of suspension or censure, depending on the nature and severity of their offence. The investigation disclosed that the firm had—over a three-year period from March 1978 to March 1981—operated an “open account” designed to favour certain of its clients.

This is how the racket operated. Halliday would receive instructions from a fund manager to purchase stock and book the stock to the open account. “If the price rose the stock would be put through from the open account to the fund manager’s institution at the new (higher) price; the put through would not necessarily be done with the stock market. Entries in the books of the firm would then be created.” According to the *Financial Times* report, these purported to represent bargains for the private client account of the fund manager or a relation or an associate at the prices at which the stock had been traded in the open account. In this way the profit would be transferred out of the open account. “If the price did not suit, the bargains would be booked later direct to the institution”.

Vatican Bank’s scandal

DID you know that the Roman Catholic Church has its own bank? Would you believe that the Vatican’s respected Archbishop Paul C. Marcinkus was instrumental in a financial scandal that has disturbed the peace of the Pope? Recent reports revealed the alleged swindling in Roman Catholic Church’s “Institute for Religious Works”, which is popularly known as the Vatican Bank.

People also call it the Pope’s Bank. Archbishop Paul Marcinkus, who is the president of the Vatican Bank, played a dubious role in a loan scheme which has almost brought down one of Italy’s largest banks, Banco Ambrosiano. The Roman Catholic Church took an unusual step and appointed a committee of three internationally respected financial experts to look into the affairs of the Vatican Bank.

The Vatican Bank’s dealings came to light when it was disclosed that Banco Ambrosiano had extended loans up to \$1.4 billion to “ghost corporations” in Panama. Its president Roberto Calvi had close ties with the Vatican Bank. After this was disclosed Calvi disappeared from Italy and reached London where he committed suicide. As police investigated Calvi’s financial affairs, it came to light that the Vatican Bank owned 1.56 per cent shares of the Banco Ambrosiano! But now it has been revealed that the Vatican Bank might be holding more shares of this bank. It further came to light that Archbishop Marcinkus was on the board of Banco Ambrosiano Overseas Ltd which made questionable loans to paper corporations in Panama.

But although the Church may believe that Mammon and God cannot go together, it is Mammon who seems to rule the Vatican, inasmuch as Archbishop Marcinkus had in fact signed letters of patronage to nearly 10 Panamanian “paper companies” that received loans from Banco Ambrosiano. The Archbishop also wrote on the letters that these ghost companies were controlled by the Vatican Bank! Pope John Paul had decided last year that he would make the Vatican’s financial dealings “clear and in the light of the sun”. But the latest scandal would indicate that the Vatican is as much a victim to greed as any other institution. The enquiry committee that the Pope has appointed is a bold step. Roman Catholics throughout the world should demand that the Vatican Bank should be an open book.

Solitary confinement

INCORRIGIBLE murderers and other political prisoners are kept in solitary confinement in the West. Social reformers and psychiatrists have protested against the punishment of solitary con-

finement which they find worse than death sentence. Douglas Wakefield who is serving a double life sentence for murder and man-slaughter in the United Kingdom, is kept in solitary confinement in Albany prison. Recently he smuggled out of prison a small autobiography called *Anatomy of a Killer*. Here he describes his life in these words:

‘Most of it is spent waiting. Waiting for the next meal, the next exercise bath days, pay day, weekends, etc. You wait for Monday to turn Tuesday, one week to the next, one month to the next, one season to the next, and one year to the next. Nothing ever changes, but you look forward, none the less, I count bricks in the wall of the cell, count up the sides, then count along the top and multiply, then count each one individually, just to make sure. I’ve come to know everything inside the cell. Anything the slightest bit of place and spot it straightaway, like a hawk spots a mouse hundreds of yards into the wilderness. The whole cell is like an extension of my body. I begin to talk to myself. Then I find myself a pet and talk to myself like a little baby. I catch a moth or spider and try to encourage it to make its home with me so that I can watch its evolution and enjoy its company. One day I tie a piece of potato or cucumber up on a piece of string in the corner of the cell and then watch as over the next few days it twirls round and round, starting to shrivel up, and then begins slowly vegetate. I realise that what I am observing is a microcosmic view of what I myself am doing. For am I not merely twirling around each day, never getting anywhere, simply slowly shrivelling mentally and vegetating physically?’

Fiction!

LETTERS to the Editor in the *London Times* have always been a delight to read. Recently I read the following letter which is worth preserving: Sir, 7 years ago in a Soviet-sponsored book in Calcutta I saw a biography of Churchill by a Russian author. However, an Indian salesgirl had wisely decided to display the book prominently on the shelf entitled ‘Fiction’.

Yours faithfully,
Michael McLaren

POWER FAMINE

An Independence Day Survey



Vanakbori thermal power station in Gujarat—a frontal view of Stage I under construction

Large slippages in targeted capacities

By COMMERCE RESEARCH BUREAU

ELECTRIC power is an important parameter in the overall economic development activity of any country. It has become synonymous with progress in all fields of activities. While to the household consumer it represents the most convenient and versatile form of energy providing simultaneously motive power, heat or light, in many vital industries there is no substitute for electric power. In the past, its use in India was mainly confined to industrial and domestic consumers, but now it is playing an important role in agriculture and transport.

Huge investment

In India's Five Year Plans considerable emphasis has been placed on the development of power sector with progressively higher allocation of funds (Table 1). Although the installed generation capacity in India increased from 2,300 mw (inclusive of utilities and non-utilities) in 1950 to 32,446 mw (only utilities) as on March 31, 1982 and the generation from 6,575 million kwh to 122,866 million kwh, the country

shortage which has increased from 10.2 per cent in 1975-76 to as much as 16.1 per cent in 1979-80. The deficit, however, came down to 10.8 per cent in 1981-82. This is mainly the result of progressively increasing demand and the inability to match it with corresponding increase in the generation capacity.

The Estimates Committee (Seventh Lok Sabha) observed in its Thirteenth Report (1980-81) "while

no official estimates are available regarding loss to economy due to power shortage and consequent power cuts, according to non-official estimate loss of industrial production alone due to shortage of power on a rough reckoning is placed around Rs 4,000 crores in 1978-79 and Rs 7,000 crores in 1979-80".

As against the total investment of Rs 13,973 crores in the power sector till the end of the Fifth Plan,

Table 1: Planwise investment in the power sector

Plan period	Investment	
	Rs crores	As per cent of total Plan expenditure
First Plan (1951-56)	320	16.3
Second Plan (1956-61)	625	11.2
Third Plan (1961-66)	1,334	15.6
Three Annual Plans (1966-69)	1,877	27.4
Fourth Plan (1969-74)	2,523	16.0
Fifth Plan (1974-79)	7,294	18.6
Total	13,973	

Source: Estimates Committee, 1980-81 (Seventh Lok Sabha) Thirteenth Report, Ministry of Energy, Department of Power, Power Generation—Central Electricity Authority, April 1981

the government has proposed an outlay of Rs 19,265 crores or about 20 per cent of the total outlay of over Rs 97,500 crores for the Sixth Five Year Plan (1980-85).

Slippages

Over the plan periods there have been heavy shortfalls in the achievement of targets (Table 2). These shortfalls were mainly attributed to delay in the supply of equipment by indigenous manufacturers, non-availability of raw materials like steel, coal, cement, etc to the required extent, delay in the receipt of replacement parts from abroad and short-ages of funds.

Thermal power forms the backbone of the power system in India. The next in importance is the hydro power. In 1981-82, the thermal power accounted for 59.8 per cent of the total installed capacity and 57.2 per cent of the generation in the country. The nuclear power has, however, failed to make much headway in the power system. The shares of different sources of power in the country's installed capacity and generation for 1970-71 and 1981-82 are shown in Table 3.

It will be seen from Table 2 that, on an average, there was a shortfall of about 29 per cent in the achievement of the targeted installed power capacity during the period of First Plan to Fifth Plan.

At the beginning of the Sixth Plan (1980-85) India had a total installed capacity of 31,184 mw (both utilities and non-utilities). During the Sixth Plan an additional capacity of 19,666 mw is proposed to be added. As against the target of creation of an additional installed capacity of 11,800 mw during the first three years of the Sixth Plan, the achievement was expected to be only about 7,500 mw — a shortfall of 36.4 per cent in the target. The capacities actually created during the first year

Table 3 : Sourcewise share in installed capacity and generation : 1970-71 and 1981-82 (Per cent)

Source	1970-71		1981-82	
	Installed capacity	Generation	Installed capacity	Generation
Thermal	53.7	50.4	59.8	57.2
Hydel	43.4	45.2	37.5	40.3
Nuclear	2.9	4.4	2.7	2.5
Total	100.0	100.0	100.0	100.0

Sources : 1. Government of India, Ministry of Energy, Central Electricity Authority, Bulletin on Power Supply Position in the Country (various issues)
2. Replay to Unstarred Question No. 9854 in the Lok Sabha on April 27, 1982

and the second year of the Plan were 1,823 mw and 2,175 mw respectively.

It is understood that the Central Electricity Authority has cleared all the new power schemes included in the Sixth Plan. Additional capacity of 16,627 mw for existing plants has been sanctioned. Benefits from these schemes would, however, accrue during the Seventh and subsequent Plan periods.

As regards power generation, the same has shown phenomenal improvement over the past 30 years. From a meagre 6,575 million kwh it increased to 1,22,866 million kwh in 1981-82. This means that power generation during this period increased at the rate of 10.4 per cent per annum. In 1981-82, the power generation increased by 10.2 per cent over that in 1980-81 and also exceeded the target of 1,22,000 million units for the year. The growth in power generation in 1980-81 was 6.5 per cent and in 1979-80, 2.1 per cent. The higher growth in 1981-82 was mainly attributed to the increase of more than 13 per cent in thermal generation because of improved functioning of the existing plants. The Union Energy Ministry has set a target of 1,40,000 million units for power generation during 1982-83 — a rise of about 14 per cent over 1981-82. Dur-

ing the first three months (April-June) of 1982-83 the power generation was 31,708 million kwh. This was higher by 1,685 million kwh or 5.6 per cent than that during the corresponding months of 1981-82.

Poor capacity utilisation

In recent years, the poor utilisation of capacities already created has been the foremost problem in the power sector. The problem is more acute so far as thermal power is concerned. The Rajadhyaksha Committee on Power in its report submitted to the government in September 1980 has expressed the view that taking into account international norms and actual performance of thermal power stations in India, a 80 per cent plant availability could be considered a reasonable norm in operating a thermal plant and the plant load factor (PLF or capacity utilisation) of 58 per cent should be considered a reasonable all-India norm. The capacity utilisation of power plants in India for the years 1970-71 to 1981-82 is given in Table 4.

Table 4 : Capacity utilisation of power plants in India : 1970-71 to 1981-82 (Per cent)

Year	Thermal	Hydro	Nuclear	Total
1970-71	40.4	45.2	65.7	43.8
1971-72	44.0	48.4	32.3	45.2
1972-73	46.0	45.8	20.9	45.2
1973-74	44.5	47.5	42.7	45.2
1974-75	45.1	42.3	39.3	43.8
1975-76	46.6	46.1	46.8	46.8
1976-77	50.1	44.2	58.0	47.2
1977-78	45.9	43.4	40.5	44.4
1978-79	40.4	49.9	49.4	44.4
1979-80	41.6	47.1	51.3	44.4
1980-81	40.8	45.2	39.9	42.2
1981-82	41.3	46.5	40.0	43.8

Sources : 1. Government of India, Ministry of Energy, Central Electricity Authority, Bulletin on Power Supply Position in the Country (various issues)
2. Reply to Unstarred Question No. 9854 in the Lok Sabha on April 27, 1982

Table 2 : Targets and achievement in creation of installed generation capacity

Plan period	Installed capacity (mw)		(Shortfall (Per cent))
	Target	Achievement	
First Plan (1951-56)	1,300	1,100	15.4
Second Plan (1956-61)	3,500	2,250	35.7
Third Plan (1961-66)	7,040	4,715	33.0
Three Annual Plans 1966-69	5,430	4,381	19.3
Fourth Plan (1969-74)	9,260	4,610	50.2
Fifth Plan (1974-78)	12,500	10,200	18.4

Source : Estimates Committee, 1980-81 (Seventh Lok Sabha), Thirteenth Report, Ministry of Energy, Department of Power, Power Generation—Central Electricity Authority, April 1982

Taking into account all the relevant factors pertaining to the power system, it should be possible to generate at least 5,000 kwh (i.e., units) per year per kw of installed power capacity. The extent to which the actual rate of generation falls below this norm can be taken as a measure of inefficiency with which the power system of the country is operated. The fuller utilisation of the installed power capacity in the country is frequently hampered, among other things, by the following factors: (a) poor plant maintenance, (b) inadequate water in reservoirs of hydel projects and (c) teething troubles in starting power houses.

It may be noted here that as against the power generation norm of 5,000 kwh per year per kw of capacity the levels obtained in the five years ended 1981-82 were less than 4,000 kwh per kw of capacity.

According to the norms prescribed by the Central Electricity Authority, apart from about 15 per cent standby capacity required for annual overhaul/maintenance, 10 per cent capacity is required to take care of forced outages, 10 per cent for partial outages, 5 per cent for spinning reserve and 10 per cent for auxiliary consumption (in case of thermal sets). However, India, with extremely limited financial and material resources cannot afford this luxury of keeping as much as 45 per cent of the total installed power capacity as standby or idle.

The comparison of plant load factor (or capacity utilisation) in India with other countries is shown in Table 5.

Table 5 : Plant load factor in various countries

Country	Plant load factor (Per cent)
United States	44.0
France	44.2
Soviet Union	55.6
Japan	50.0
West Germany	46.7
United Kingdom	40.2
Malaysia	57.9
Sri Lanka	32.6
Pakistan	55.5
Kenya	45.0
Zambia	63.7
Egypt	32.2
Spain	39.0
India	45.9
Italy	41.6
Australia	43.8
Canada	51.1

Source : Estimates Committee 1980-81 (Seventh Lok Sabha), Thirteenth Report, Ministry of Energy, Department of Power, Power Generation—Central Electricity Au-

It would be seen from Table 5 that the plant load factor in India is comparable with that in various countries. However, in most of these countries there is virtually no power demand staggering and the plant availability is over 80 per cent. The PLF in these countries appears to be low because considerable reserve capacity is provided in order to meet sharp peaks in demand or to take care of unexpected and major break-downs which means that although the capacity is available a large portion of it remains unutilised due to lack of load for most of the time. The reason for low PLF in India is, however, not due to lack of demand but low plant availability.

Consumption pattern

Over the past 30 years there has been a significant change in the pattern of consumption in favour of agriculture. Between 1951 and 1979-80, the share of agricultural consumption in the total consumption went up from a meagre four per cent to 17 per cent while the share of industrial consumption came down from 64 per cent to 60 per cent. Despite this, the industrial sector continues to be the largest user of electric power in the country. The electricity sales by class of utilisation for 1951 and 1979-80 are shown in Table 6.

Although there has been vast improvement in power consumption in India over the years, the level lags far behind that obtained in developed countries. The per capita power consumption in India was only 134 kwh in 1979-80. Against this the consumption during 1976 in the United States was 8,487 kwh and in the United Kingdom it was 4,166 kwh. Within India also wide disparity in the pattern of power consumption among the States and Union Territories is seen. The per

capita power consumption in 1979-80 ranged from just six kwh in Manipur to 384 kwh in Delhi. The per capita power consumption in different States and Union Territories is shown in Table 7. The Sixth Plan has envisaged to raise the per capita power consumption in the country to 212 kwh by the end of 1984-85.

Chronic problem of deficit

Despite vast improvement in power capacity and generation over the past three decades, the country continues to face power deficit year after year. This is mainly because the power generation, though showing increase, is not able to keep pace with the ever growing demand for power which is increasing much faster than the actual generation. The other related causes are the poor utilisation of capacities already created and the loss of power in transmission. Whatever power is generated, is not entirely available for consumption. In 1978-79 the energy lost in transformation, transmission and distribution was about 20 per cent. The statewide transmission and distribution losses for 1978-79 to 1980-81 are shown in Table 8. During 1980-81, the transmission loss was the highest (26 per cent) in Rajasthan and the lowest (7 per cent) in Meghalaya.

Various factors contribute to lower power generation. Seasonal variations in power supply occur especially in case of hydro power which depends on the availability of water in the reservoirs of these plants. Similarly, in the case of thermal plants, much depends on the availability of coal. Deficiency in the availability of these basic requisites coupled with technical in-plant problems lead to fall in power generation. And to meet the situation restrictions of varying magnitudes, depending upon the severity of the shortfall, are imposed on the

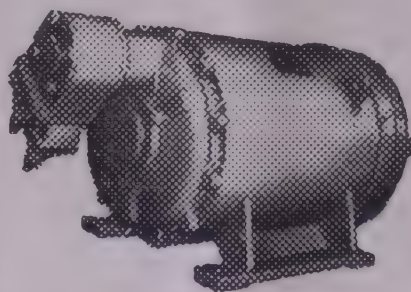
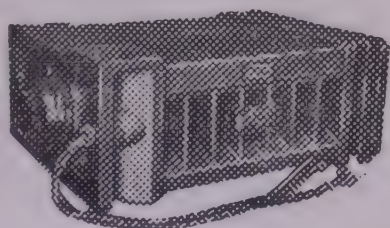
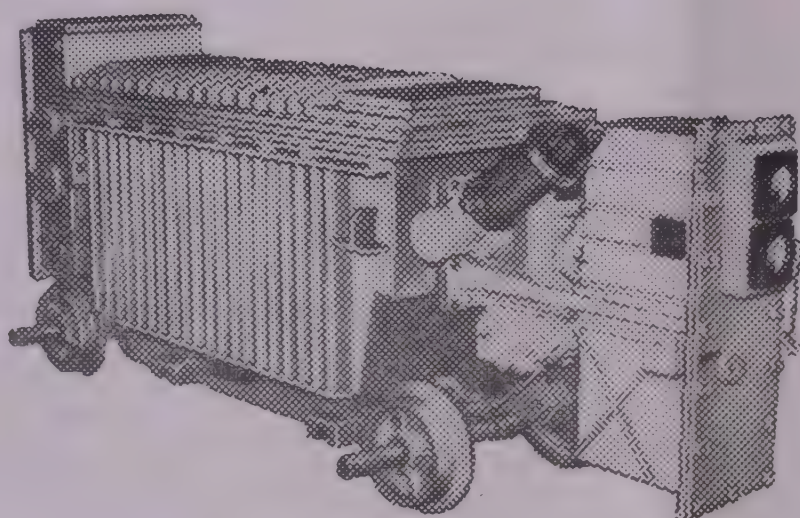
Table 6 : Electricity sales by class of utilisation

Item	1951		1979-80	
	Million kwh	Per cent to total	Million kwh	Per cent to total
1. Domestic	594	12.4	8,411	10.8
2. Commercial	332	6.9	4,149	5.3
3. Industrial	3,054	63.8	46,677	59.7
4. Traction	330	6.9	2,289	2.9
5. Agriculture	203	4.2	13,189	16.9
6. Others	280	5.8	3,511	4.4
Total	4,793	100.0	78,226	100.0

Source : Government of India, Ministry of Planning, Central Statistical Organisation, Basic Statistics Relating to the Indian Economy, 1950-51—1979-80, September 1981

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- ☐ Power Electronics and Automation
- ☐ RF Induction Tube Welders and Heaters
- ☐ Electronic Gauging Equipment

Table 7 : Statewise per capita power consumption 1960-61 and 1979-80

State/Union Territory	1960-61	1979-80
States		
Andhra Pradesh	19	95
Assam	4	34
Bihar	38	79
Gujarat	52	240
Haryana	111 (a)	250
Himachal Pradesh	9 (b)	53
Jammu & Kashmir	14	90
Karnataka	44	153
Kerala	29	104
Madhya Pradesh	20	99
Maharashtra	73	223
Manipur	4 (b)	6
Meghalaya	27 (c)	30
Mizoram	2	24
Nagaland	43	116
Orissa	33	328
Punjab	12	104
Rajasthan	...	40
Sikkim	...	181
Tamil Nadu	50	181
Tripura	3 (b)	15
Uttar Pradesh	15	96
West Bengal	85	113
Union Territories		
Andaman & Nicobar	...	49
Arunachal Pradesh	...	13
Chandigarh	...	326
Dadra & Nagar Haveli	...	47
Delhi	187	384
Goa, Daman & Diu	...	207
Lakshadweep	...	23
Mizoram	...	9
Pondicherry	...	224
All-India	38	134

Notes : (a) Data relate to 1971-72
 (b) Data relate to 1965-66
 (c) Data relate to 1974-75
 (...) = Not available

SOURCES : 1. Government of India, Ministry of Energy, Department of Power, Report of the Committee on Power, 1980.

2. Reply to Unstarred Question No. 6050 in the Lok Sabha on July 29, 1980.

use of power. In the last seven years, i.e., from 1975-76 to 1981-82, the availability of power has fallen short of requirement by an average of 11.7 per cent. During these seven years, 1976-77 was by far the best year with the lowest deficit of 6.3 per cent (Table 9).

In the latest three years ending 1981-82, the situation improved substantially as the deficit came down to 10.8 per cent from 16.1 per cent in 1979-80 and 12.6 per cent in 1980-81. The Union Energy Ministry has anticipated that the deficit would be brought down to 8 per cent in 1982-83.

Among the states there are glaring disparities in the availability of power. Barring the states of Andhra Pradesh and Kerala, all other states have been facing deficits in the availability of power for the past

in certain states like Rajasthan and Orissa had become so critical as to force these states to resort to 100 per cent power cut for industries, while in Maharashtra, there were instances, of total shut-downs for temporary periods. The situation in West Bengal has become chronic as the consumers in the State have been undergoing the ordeal of power cuts for years. During 1981-82 six states and two union territories had surplus power — Andhra Pradesh (+9.3 per cent), Kerala (+9.2 per cent), Orissa (+5.8 per cent), Jammu & Kashmir (+2.4 per cent), Gujarat (+1.6 per cent), Himachal Pradesh (+0.3 per cent), Delhi (+2.3 per cent) and Chandigarh (+2.0 per cent). All other states faced deficits ranging from 2.9 per cent in Haryana to 37.5 per cent in Bihar. Barring perhaps Kerala, practically in every other state, irrespective of whether surplus or deficit in power, there were restrictions of some or the other kind on the use of power. Only two states namely, Karnataka and Tamil Nadu have recently withdrawn all the power cuts in the states following the improvement in the supply position.

In order to tackle the problem of deficits in different areas the Union Government is working out the strategies to pool and distribute the power among different regions/states. The transmission of power from surplus to deficit states/areas through the national grid would, however, depend on the construction of transmission lines. In the first instance, integration of the state power systems into regional power grids is being carried out which is expected to be completed by the end of the Sixth Plan. With a view

Table 8 : Statewise transmission and distribution losses

State	1978-79	1979-80	1980-81
Andhra Pradesh	20.54	19.73	21.90
Assam	20.26	18.65	19.60
Bihar	23.70	26.08	22.30
Gujarat	16.73	16.82	19.76
Haryana	21.68	32.52	...
Himachal Pradesh	19.46	18.96	...
Jammu & Kashmir	41.24	...	...
Karnataka	21.94	21.28	21.22
Kerala	11.39	13.54	14.59
Madhya Pradesh	20.24	22.29	22.01
Maharashtra	17.74	16.50	16.12
Meghalaya	7.07	4.24	7.00
Orissa	18.26	18.29	19.17
Punjab	19.41	19.09	17.47
Rajasthan	26.60	25.22	26.16
Tamil Nadu	18.63	19.36	18.90
Uttar Pradesh	18.63	18.78	15.46
West Bengal	12.97	12.55	13.39

(...) = Not available

SOURCE : Answer to the Starred Question No. 406 in the Rajya Sabha on December 21, 1981.

to effectively meeting the power transmission requirements, 400 kv transmission lines are being installed in place of the existing 220 kv lines.

Super thermal power stations

In order to utilise optimally the identified coal resources of the country and to generate power at the minimum cost, the Union Government has decided to establish large thermal power stations at the pit-heads and transmit power to load centres, wherever such projects are economically advantageous. The super thermal power stations being executed as also proposed to be taken up in the country in the Cen-

Table 9 : Requirement and availability of power : 1975-76 to 1981-82

Year	Requirement (Million kwh)	Availability (Million kwh)	Deficit	
			Million kwh	As per cent of require- ment
1975-76	83,200	74,700	8,500	10.2
1976-77	89,000 (7.0)	83,400 (11.6)	5,600	6.3
1977-78	1,02,180 (18.3)	86,343 (3.5)	15,837	15.5
1978-79	1,08,535 (6.2)	97,349 (12.7)	11,186	10.3
1979-80	1,18,370 (9.1)	99,302 (2.0)	19,068	16.1
1980-81	1,20,118 (1.5)	1,04,932 (5.7)	15,186	12.6
1981-82	1,29,245 (7.6)	1,15,274 (9.9)	13,971	10.8

Note : Figures in brackets indicate percentage variations over the previous year

tral sector by National Thermal Power Corporation (NTPC) are shown in Table 10.

Recently the Union Energy Ministry has given clearance for the setting up of a 1,000 mw super thermal power station in Delhi. A committee of experts under the chairmanship of the NTPC chairman has also been constituted to go into details of the project, including the selection of the site.

Captive power generation

Captive power plants are normally set up for critical requirements or for standby purposes. Although under the Industrial Policy Resolution, 1956, all new power units were to be established only in the public sector, the resolution did not preclude the expansion of the existing privately owned units or the possibility of the state securing the co-operation of private enterprises in the establishment of new units in the national interest. Captive power generation was also permitted for meeting the essential load of core sector industrial units such as steel, fertiliser and aluminium. However, in the context of planning for additions to capacity and the problems faced by major industries in getting reliable supply from the power grids, the Union Government decided in January 1982 to allow the core sector public sector undertakings to set up their own coal-based captive thermal power units on a regular basis and feed the excess power to the national grid for being fed in turn to deficit areas.

Although during the period 1950 to 1979-80 the captive power capacity in the country increased from

600 mw to 2,700 mw and the generation from 1,468 million kwh to 8,037 million kwh, their shares in the all-India capacity and generation have respectively gone down from 26.1 per cent to 8.7 per cent and from 22.3 per cent to 7.1 per cent over the same period (Table 11).

Hydro-power potential

India possesses vast potential for hydro power generation. According to the estimates of the Central Electricity Authority the hydro-electric potential of Indian rivers is put at 75,000 mw at 60 per cent load factor. The hydro-electric potential actually utilised is less than 10 per cent — calculating at 60 per cent of the derated installed capacity of 12,171 mw as at the end of March 1982.

The development of hydro-electricity has been hampered by heavy transmission losses over long distances to take power from the generating centres, generally located in the less accessible areas, to the consuming centres. The construction of roads for starting such projects adds to their costs. Despite these limitations, exploitation of hydro power resources deserves much greater emphasis for at least four reasons: (a) unlike other sources, it is an inexhaustible source of energy; (b) because of the low cost of current input, hydro-power is the cheapest of all, the high cost of a hydro-power system notwithstanding; (c) it is the only major power source which does not cause environmental pollution and (d) the availability of power and the improved road system in the project and nearby areas may provide impetus to the process of the development of these areas.

Mini hydel units: A number of experts on power have emphasised the need for exploiting the available hydro potential from small schemes simultaneously with bigger schemes. The need for such mini hydel projects is all the more in rural and remote areas which are far away from major power projects or regular power grids. The Rajadhyaksha Committee on Power, has recommended that a systematic study of the small hydro potential available on canal falls using low head 'bulb' type turbines, irrigation outlets and small hill streams and rivers, needs systematic reassessment. The committee further recommended that measures for reducing the cost of small hydel projects be examined and that in states where the potential for micro-hydel projects exists, the state electricity boards should have a separate division quite distinct from the major project group for planning and executing such projects.

By March 1981, mini hydro schemes with an aggregate capacity of 300 mw were in operation. Five more schemes totalling 242 mw were under execution, of which one scheme for 48 mw is likely to be completed by 1984-85 and the remaining 194 mw would be completed during the Seventh Plan.

Rural electrification

Rural electrification covers a wider field than just power for agriculture. It includes, for instance, domestic and street lighting and power for rural-based industries but by far the largest share of the power consumed in the rural areas goes to agricultural pumping sets. Rural electrification, as a planned programme, was initiated in the country in the 1950s. In the early stages the emphasis was electricity as a social amenity rather than as an input to agriculture and industry.

During the First Five Year Plan the programme was confined to a very limited number of states. By it was stepped up sharply during the two subsequent plans and extended to all states, although not on the same scale. However, the progress achieved was not significant. Till the end of the Third Plan (March 1966) electricity had reached to only about 45,000 villages out of the total 5.76 lakh villages. To finance the construction of rural feeders and energisation of pumpsets the Rural Electrification Corporation was set up in 1969. It was only from the

Table 10: Super thermal power stations in India

Name	Location/State	Installed capacity (mw)	
		Approved planned	Ultimately
1. Singranli	Uttar Pradesh	2,000 (5x200) (2x500)	2,000
2. Korba	Madhya Pradesh	1,100 (3x200) (1x500)	2,100
3. Ramagundam	Andhra Pradesh	1,100 (3x200) (1x500)	2,100
4. Farakka	West Bengal	600 (3x200)	2,100
5. Pench	Madhya Pradesh	...	840
6. Waidhan (Vindhyachal)	Madhya Pradesh	...	3,000
7. Kahalgaon	Bihar	...	2,800
8. Talcher	Orissa	...	2,800
9. Singrauli (second)	Uttar Pradesh	...	3,000
10. Manuguru	Andhra Pradesh	...	3,000

Note: (...) = Not available

specific targets in terms of villages electrified and pumpsets energised were fixed for rural electrification programmes. During the Fifth Plan (1974-79), the rural electrification programme was integrated with the Minimum Needs Programme. The objective of the rural electrification programme now was to cover at least 100 per cent of the villages in the country by 1990.

As at the end of March 1982, out of the 5.76 lakh villages in the country 2.94 lakh villages or 51 per cent were electrified. Three states namely, Haryana, Kerala and Punjab have achieved 100 per cent electrification closely followed by Tamil Nadu with 92 per cent. Among the rest of the states the percentage ranged from 7 to 70.

The Rural Electrification Corporation had set a target for electrifying one lakh villages during the Sixth Plan. As against this, 44,000 villages were electrified in the first two years of the Plan, i.e., 1980-81 and 1981-82. A new orientation is being given to the rural electrification programme in the light of the new 20-point economic programme. It is now proposed to take electricity to all the villages by 1990. When compared with the previous plans, a substantially higher outlay of Rs 1,861 crores has been allocated for rural electrification in the Sixth Plan which would be supplemented by Rs 420 crores by commercial banks. The outlays on rural electrification schemes in the previous Plans were: Rs 8 crores in the First Plan, Rs 75 crores in the Second Plan, Rs 153 crores in the Third Plan, Rs 607 crores in the Fourth Plan and Rs 743 crores in the Fifth Plan. Institutional agencies provided Rs 129 crores in the Fourth Plan and Rs 99 crores in the Fifth Plan.

The World Bank has recently extended a loan of \$ 304 million for rural electrification in 14 states. Such loan assistance was made available by the World Bank earlier for the first time for \$ 57 million which was fully utilised during October 1975 to December 1980 and second time for \$ 175 million in October 1979 to be utilised by the end of March 1984. For the latest loan, however, the World Bank has put forth two preconditions for the approval of the loan; firstly the state electricity boards should bear 20 per cent of the project costs and secondly the boards should improve their financial performance.

An evaluation study of rural

Table 11 : Installed capacity and generation by captive power plants

Year	Installed capacity		Generation	
	mw	As per cent of the capacity in the country	Million kwh	As per cent of total capacity in the country
1950	600	26.1	1,468	22.3
1955	700	20.6	2,185	20.3
1960-61	1,000	17.9	3,186	15.8
1965-66	1,200	11.8	3,835	10.4
1973-74	1,800	9.8	6,107	8.5
1975-76	2,100	9.5	6,695	7.7
1976-77	2,200	9.3	7,000	7.3
1977-78	2,500	9.5	7,559	7.6
1978-79	2,600	8.9	7,607	6.9
1979-80	2,700	8.7	8,037	7.1
Annual rate of growth (per cent) between 1950 and 1979-80		5.3		5.3

SOURCE : Government of India, Ministry of Planning, Central Statistical Organisation, Basic Statistics Relating to the Indian Economy (various issues).

programme Evaluation Organisation of the Planning Commission recently, covering 397 electrified and 79 non-electrified villages in 19 states highlighted the lapses in implementation of the rural electrification scheme. According to the study, acute shortage of construction material, inadequate transport facilities and inadequate delegation of financial powers to field officers — besides other causes — thwarted the progress. The study further pointed out that very little was done to ensure advance planning for integrated rural development. Further, no suitable system of collecting data on the number of consumers, consumption and load for urban and rural sectors was evolved in any state which could ensure proper administrative and financial management.

Greater emphasis on energising pumpsets as a part of rural electrification programme was laid during the three Annual Plans 1966-69. On the basis of the groundwater potential available in the country, there is scope for installation of 120 lakh pumpsets spread over different parts of India. At the beginning of the Sixth Plan (1980-85) there were about 27 lakh diesel pumpsets and about 40 lakh electrical pumpsets in operation in the country. The Sixth Plan has targeted to energise 25 lakh more pumpsets taking the total of energised pumpsets to about 65 lakhs. As against this, at the end of June 1981, 43.8 lakh pumpsets were energised in the country. The Plan proposed to give special attention to pumpsets energisation in the states of Uttar Pradesh, Bihar, West Bengal, Orissa and Madhya Pradesh which

still have a large untapped groundwater potential.

New and renewable sources of energy

The fact that the proven hydro-carbon resources are limited and are getting depleted at a fast pace and that these limited resources of conventional energy will not be able to sustain the needs of the country for a prolonged period, has prompted the planners to think about new and renewable sources of energy. According to one study, renewable sources of energy could meet a very significant portion of the total energy requirements of the country by 2000 A.D., starting with a smaller level in the first five years and then rapidly growing in importance in the next decades. The study shows that the contribution could be as much as 49 per cent including 12 per cent from hydro, 16 per cent from fuelwood and biomass and 21 per cent from modern renewable energy technologies including solar, modern biogas, wind, hydrogen and ocean thermal energies.

In India the situation is more favourable for the exploitation of such resources in that there is a great deal of sunshine all over the country and there are vast areas which are not served by centralised energy systems.

A commission for Additional Sources of Energy (CASE) has already been established to coordinate and accelerate the efforts in this field.

The Sixth Five Year Plan (1980-85) has laid special emphasis on the development of renewable

sources of energy. The broad approach in the Plan would be:

(i) To implement on a large scale, programmes such as those of energy forestry and biogas where technology development has already reached a stage which permits field application,

(ii) To carry out field testing and demonstration on a countrywide basis of technologies, which have the potential to become commercially viable in the next five to seven years, and

(iii) To intensify research and development of other technologies where the potential is likely to be available over a longer time horizon.

Long-term power plan

The planning for power in India is at present being undertaken on a five-year basis as a part of Five Year Plans. It is said that the gestation period of a thermal power station is

4 to 5 years and that of a hydro-power station 8 to 10 years. As such, in the present set up, the schemes sanctioned in any Plan period would spill over into the next five year plan and would yield benefits only after the middle of the next five year plan. This is one of the main reasons for the heavy slippages in the commissioning of new generation schemes.

The Rajadhyaksha Committee on Power recommended that "with projects having gestation period of 10 years and more, the need for long-term demand forecasting, covering periods of 15-20 years needs no further justification. Such forecasts should be prepared and updated every three years and should form the frame work for formulating Five Year Plans. A time frame of this order will permit long gestation hydel and nuclear projects to be planned along with shorter gesta-

tion thermal projects so that the generation mix, region-wise, is optimised. The absence of such a long term perspective has been one of the reasons for the neglect of hydel projects during the past two decades.

The Union Energy Ministry has already accepted the concept of long term plan for power sector and has already undertaken with the Central Electricity Authority a comprehensive long term programme for power development to initially cover the period up to 1995 — to be extended up to 2000 AD — consistent with the desired perspective of economic growth. According to the Union Minister of State for Energy doubling of the existing capacity in the next eight years and installing capacity of one lakh mw in the long-term are the salient features of the programme. The Plan is not yet finalised.

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ANDHRA PRADESH

Self-sufficiency in Sixth Plan?

By A. RAMA RAO

HYDERABAD
In Andhra Pradesh there are adequate coal deposits to sustain thermal power generating capacity of 4000 to 5000 mw. The coal is available in collieries at Singani, Kothagudam, Ramagundam and Elampalli. The estimated coal reserves in Andhra Pradesh are 1188 million tonnes, and there are suitable areas on the banks of the Godavari river to establish super thermal stations at the pit-heads of collieries.

The super-thermal station at Ramagundam is being implemented under the central sector and its total capacity will be 2100 mw. Near Bhadrachalam, it is proposed to set up a plant of 1050 mw. The feasibility of setting up two or three super-thermal stations near the coal fields in the Godavari valley has been proved. After completion of all these thermal projects, Andhra Pradesh will be able to supply power to states in the southern region and transfer power to regional grids and the national grid.

The Godavari and Krishna river-valleys have large hydro-potential of 2500 to 3000 mw at 60 per cent load factor. Available hydro-potential can be used to install a hydro capacity of 4 to 5 million kw.

By the 1990's the total energy from the hydro and thermal systems in Andhra Pradesh can meet a potential demand of 6 to 7 million kw.

Power development during past three decades

At the end of 1950-51, the installed capacity of power generation was only 43 mw and it was increased to 1888 mw by the end of 1979-80. In 1950-51, only 197 villages were electrified whereas the number of electrified villages was increased to 16,691 by end of 1979-80. The length of high tension transmission lines increased from 2900 km to 62,400 km during the period from 1950-51 to 1976-77.

The total plan outlays on power development between 1950-51 to 1979-80 amounted to Rs 1043.20 crores. The average percentage of outlay on power generation out of the total plan outlay was 31.8 per cent, whereas the minimum was 20.4 per cent during the second plan period and the maximum was 42.5 per cent during fourth plan period. Thanks to the foresightedness of the State

Government, its investment on power projects was always more than the all-India percentages, including the investments made by industrially advanced states like Gujarat, Maharashtra, Karnataka, Haryana, Punjab and West Bengal.

Table 1 indicates the progress achieved in the power sector field from the First Five Year Plan upto the end of March 31, 1980.

It may be seen from Table 1 that the per capita consumption of power in the State was 2.57 kwh lower than the all-India average of 17.8 kwh during the beginning of the First Plan whereas the per capita consumption was 96 kwh as against all-India per capita consumption of 131 kwh during 78-79. A phenomenal increase in the installed power capacity from 43.1 mw at the beginning of the First Five Year Plan to 1888 mw as on March 31, 1980 was achieved. The number of towns and villages electrified were 16,691 as on March 31, 1980 as against 197 at the beginning of the First Plan. About 38,773 pumpsets were electrified as on March 31, 1980 as against 620 pumpsets at the beginning of the First Plan. Further, 21.76 lakhs consumers were served as on March 31, 1980 as

against 0.30 lakhs of consumers at the beginning of the First Plan. The per capita consumption of power was 2.5 kwh in the beginning of the First Five Year Plan as against 9.6 kwh as on March 31, 1980.

Thermal and hydro-electric power stations

Significant additions to the installed capacities of power generation were added during the last five year plans. During the Fifth Plan 440 mw of installed capacity was added by commissioning four thermal stations of 110 mw each, two units under Kothagudam thermal scheme-stage III and another other two units under stage IV. A capacity of 345 mw was also added by commissioning the first three units of 115 mw each, under the Lower Sileru hydro-electric scheme. The fourth unit of 110 mw capacity under Lower Sileru hydro-electric scheme was commissioned during 1978-79. Another unit of a 110 mw was also commissioned under the Nagarjuna Sagar project hydro-electric scheme. Substantial expenditure was incurred in the case of the Srisailem project stage-I during the plan period 1974-80, without corresponding achievement. The actual expenditure

Table 1 : Progress of power development in Andhra Pradesh

Item	At the beginning of its plan.	At the end of						
		1st plan.	2nd plan	3rd plan	As on 31.3.69	As on 31.3.74	As on 31.3.78	As on 31.3.80
1	2	3	4	5	6	7	8	9
Installed Capacity (mw)	43.1	98.9	213	291	615	668	1563	1888
Peak Demand (m.w.)	22.6	54.6	190	258	440	652	978	1060 (restricted)
Sales (mkwh)	..	..	601	1048	1638	2479	3782	4700 (anticipated)
Town and villages (Electrified) Nos.	197	630	2680	4353	5788	10715	14851	16691
Pumpset (Nos)	620	4300	17968	57225	123167	261989	318357	38773
Total consumers served (in lakhs)	0.30	1.49	2.70	5.25	8.27	14.2	17.79	21.76
Per capita consumption (kwh)	2.5	7.0	19	31	44	60	80	96
All India per capita consumption (kwh)	17.8	26.4	38	61	78	97.5	120 (1978-79)	131

Prof Rama Rao is director, National Institute of Rural Development, Hyderabad.

POWER FAMINE

224

amounted to Rs 505.95 crores during 1974-80, as against the plan allocation of Rs 529.16 crores. The achievement was 1220 mw whereas the target was 1890 mw leaving a shortfall of 670 mw.

The energy needs of the State for the period from 1979-80 to 1984-85 were assessed by the Eleventh Annual Power Survey Committee as detailed below:

	1980-81	81-82	82-83	83-84	84-85
A. Plan Demand (mw)	1376	1551	1720	1875	2063
B. Energy Requirement (mkwh)	7592	8558	9490	11348	11425

The energy needs of the State were under-estimated by the Annual Power Survey Committee and the electricity board requested the Power Survey Committee to revise the estimates upward for the following reasons:—

1. The requirement of certain H.T. industries, which are likely to come up during 1979-84 are not considered by the Power Survey Committee. For instance, the main load of the Vizag steel plant and the aluminium project have been omitted and, hence, additional power requirements have to be provided for.

2. The power requirements for of cement plants, to be set up during 1979-84, were not considered by the Annual Power Survey Committee.

3. The assumption of 63 per cent load factor is not realistic as the load factor will be lower with the availability of adequate power without any restriction. Higher load factor achieved during the recent past was due to special reasons i.e. staggering of loads, peak restrictions etc and with the availability of power, the growth rate will also pick up.

4. The agricultural loads draw power at a low load factor and the power requirements should be computed on the connected load with suitable diversity factor.

The anticipated power and energy requirements upto 1984-85 by the AP State Electricity Board are as below:

Year	Power (mw)	Energy requirements (mkue)
1981-82	1788	8558
82-83	2097	9990
83-84	2314	11200
84-85	2655	128000

Sixth Five Year Plan

The gross margin between the load demand and the installed capacity varies from system to system depending upon the size of the system, size of individual units, outage rates of different generating sets, constraints on hydro-stations impos-

finalised at 61.3 per cent and for hydel plants at 87.5 per cent. But the actual performance was well below these norms. A realistic appraisal of thermal performance has to be made, considering the power quality of coal, non-availability of timely inputs and other factors.

Andhra Pradesh has about 50 per cent of its installed capacity in hydro-

power stations, which may result in power shortages due to monsoon failure. The predominance of hydro power in the Southern Grid exposes the system to greater fluctuations due to the uncertainty of the monsoons. Therefore, it is thought prudent to plan for utilisation of hydel resources not on the basis of averages or even 60 per cent availability but on the basis of lowest availability and make up the deficit by installing adequate thermal capacity.

With the commissioning of thermal and hydro power stations, the power position and projection in the state is shown in Table 2.

Table 2: Power development during Sixth Plan

/tem	1981-82	82-83	83-84	84-85
1. Planned Load capacity (mw)	1788	2097	2314	2655
2. Installed capacity at 1.5 times per load (mw)	2692	3145	3471	3983
3. Installed capacity available (mw)	2743	3083	3319	3619
4. Surplus (+) or deficit (—) mw	+61	—62	—52	—104
5. Energy requirement (mw)	8558	9990	11200	128000
6. Energy availability (mw)	10200	12200	13800	15400
7. Surplus (+) or deficit (—) mw	+1642	+2210	+2600	+2600

From the above statement, it may be observed that the State will be meeting fully, its power requirements by 1984-85, and it will supply the demands of growing industrial development.

New schemes

A. Bhadra Chalam Thermal Power Station-Stage-I (2x21 omw) = 420 mw.

This station is located at Manuguru on the upstream of the Godavari river, about 50 km from Bhadrachalam. Two units of 210 mw capacity are proposed to be installed initially with expansion upto five times. This location is suitable for super thermal power stations as it is in the heart of Manuguru coal mines, from where coal can be transported by conveyor belt. Water requirements can be met from the Godavari river. This thermal station can be commissioned within four years after obtaining sanction. The first unit can be commissioned in the last quarter of 1984-85 or the first quarter of

was proposed during the Sixth Plan (1981-85).

B. Nagarjuna Sagar Pumped Storage Scheme-Stage-II (3x100 mw)

It is proposed to utilise the remaining three power stations in Nagarjuna Sagar dam by installing three more units with a capacity of 100 mw each at an estimated cost of Rs 55.78 crores, in addition to four units of 100 mw each. Initially, they will be run as conventional turbine generation units and will be used as generators during peak load hours and produce power and as motors to pump back water during off peak hours. The estimated cost of these four units of 100 mw was Rs 70.12 crores, out of which the expenditure incurred was Rs 50 crores and the balance will be spent during Sixth Plan period). If deliveries of generators can be expedited, commissioning of these units can be advanced one year and the project completed by 1985-86.

Nagarjuna Sagar left canal scheme (2 x 30 mw = 60 mw)

Under the scheme, it is proposed to install two units of 30 mw each in power house near the intake of the

main canal of Nagarjuna Sagar project to exploit the available head of 75.26 ft. generate power from the irrigation surplus charge, and the annual energy generated is estimated at 181 million kwh. The scheme is estimated to cost Rs 2 crores and the works commenced recently. Pochampad H.E. Scheme (3x9 mw) = 27 mw

The power house is to be located at the rear of Pochampad dam. The generation of hydel power of 27 mw will be from the discharges let into the canal, with an investment of Rs 2 crores. The energy potential is about 181 million units, and the two units are expected to be commissioned during 1985.

It may be seen from the above schemes that the additional hydel power will be 387 mw, whereas the additional thermal power will be around 420

Advance action schemes

The following hydro and thermal power schemes are proposed to be taken in the latter part of the Sixth Plan that additional generation can be achieved uniformly beyond 1985.

Vijayawada Thermal Station Extension- stage-II	2 x 210 mw
Inchampalli H.E. scheme	11 x 60 mw
Polavaram H.E. scheme	4 x 30 mw

An amount of Rs 20 crores is sought for the above advance action schemes during the Sixth Plan.

Micro-hydel projects

There are about 43 sites on various canals, on which it is possible to instal

bulb type or some other hydel units to generate about 400 million units per year. It is proposed to utilise these sources of energy available along the canals.

Electrification of rural areas

As on March 31, 1980, 16,467 villages and 65,000 hamlets have been electrified out of 27,445 towns and villages (towns-224) and 32,750 hamlets. The number of agricultural pumpsets energised is about 4,00,000 (to be exact 3,87,731) as on March 31, 1980. Plans were drawn to electrify 1,250 villages and energise 38,000 pumpsets during 1981-82. An amount of Rs 38.69 crores was provided for 1981-82 for rural electrification, distribution and systems improvement.

By the end of the Sixth Plan about 90 per cent of villages excluding hamlets, and 60 per cent of villages including

hamlets would be electrified. The per capita consumption of electricity was 90 kwh as against the all India consumption of 131 kwh.

An amount of Rs 97.27 crores was spent on distribution, and the rural electrification programme during the period 1974-80. About Rs 250 crores is provided for distribution and rural electrification scheme during the Sixth Plan.

Systems improvement

Continuous efforts are being made to reduce the losses and, as a result, line losses have come down from 25.4 per cent during 1973-74 to 20.8 per cent in 1978-79 inspite of a 77 per cent increase in the sales during this period. An amount of Rs 47.88 crores is provided for the plan period 1980-85 for reduction of line losses.

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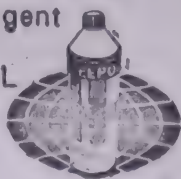


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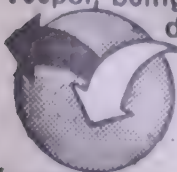
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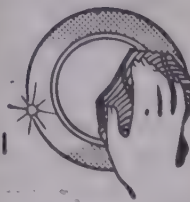
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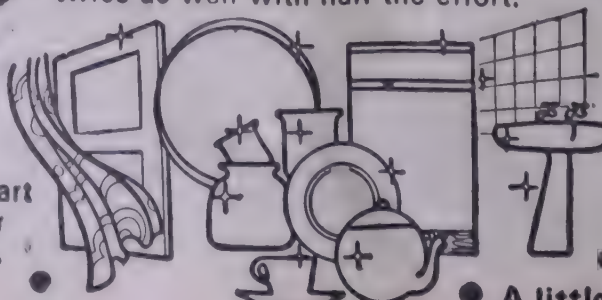


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ESPIE abundant natural resources, Assam's backwardness in the industrial field is a well recognised fact. One of the factors which has hindered the economic development of Assam is shortage of power. The process of development inevitably involves increasingly higher levels of energy consumption.

But the average per capita power consumption in Assam, as of 80-81 was only 33 units against the all-India figure of 130 units. Till February last year, Assam's total installed capacity was only 141.5 mw, of which 111.5 mw was available from the gas based Namrup thermal power station in upper Assam and 30 mw from the single unit oil based Chandrapur thermal station near Gauhati.

On the contrary, the demand was 365 mw in 1979-80 and 417 mw in 1980-81 which showed that what was generated in the State was less than half the load demand. As a result, Assam has to depend to a great extent on the neighbouring State of Meghalaya which continues to supply power to the tune of 300 million units a year. On occasion the power situation became acute and the State Government had to amend the Energy Control Order in 1975 with upto 25 per cent cut in power consumption in respect of all industrial units. In view of the shortage, the Assam State Electricity Board (ASEB) was not in position to supply sufficient quantity of power to State's most vital industrial sector—tea gardens. Besides, frequent power cuts, interruption and restrictions have also dampened the spirit of the entrepreneurs to set up new industrial ventures or expand the existing ones.

However, ASEB sources claim that the position has shown some improvement of late with the commissioning of some new projects and the State Government is contemplating the withdrawal of the Energy Control Order soon.

Wrong priorities

The present shortage in power supply is attributed to the wrong

priorities of planners in the early stages when due emphasis was not given to power generation in the State. Just after independence, there was no power generation project in the State sector and the small quantity of power required in the important towns, mostly for domestic consumption, was supplied by diesel units operated privately. Some tea gardens managed by the Britishers also generated power at their own initiative.

During the past 15 months or so, the installed capacity in Assam has been raised to 312.5 mw by commissioning two units of the Bongaigaon thermal station (2 X 60 mw), two units of the Lakwa thermal station (2 X 15 mw) and seven units of the mobile gas turbines (7 X 3 mw), imported from the United Kingdom.

Constituted in June 1958, the Assam State Electricity Board is now solely responsible for coordinated development of generation, transmission and distribution of power in the State. The ASEB, at the time of its formation had a total generation capacity of only 14 mw with about 13,000 consumers.

Soon after its inception, the ASEB initiated two major projects—the 36 mw Umiam hydel project in Meghalaya and 69 mw Namrup thermal project in Upper Assam. The projects were commissioned in 1964-65 and with these and some other projects the total generation reached the present stage of 312.5 mw with about two lakh consumers. Among the major projects commissioned during the past few years are the 60 mw first unit of the Bongaigaon thermal project, seven units of the (7 x mw) mobile gas turbine set, the first of its kind in the country and the 3 X 15 mw Lakwa thermal station.

Wide gap

However, the gap between demand and supply is still wide as the current year's load demand has been estimated at 462 mw. Meanwhile, the ASEB has embarked upon an ambitious plan of raising its genera-

tion capacity to 601 mw by the end of the revised Sixth Five Year Plan. Two on going projects—the Karbi Langpi hydel project and extension of the Chandrapur thermal station will add 100 mw and 30 mw respectively, in addition to 120 mw from the third and fourth units of the Bongaigaon thermal project to bring the total to 601 mw.

But, ASEB sources feel that even after all these projects are completed and the generation capacity is raised to 601 mw, the shortfall of power in 1984-85 will remain. According to present estimates, the augmentation in power generation will raise the per capita consumption to 96 units by 1984-85, while the total load demand will be 700 mw. The sources pointed out that in order to bring about a balance between the demands of various productive sectors of the economy and supply in as short a time as possible, maximisation of power generation has been given due emphasis in the Sixth Plan.

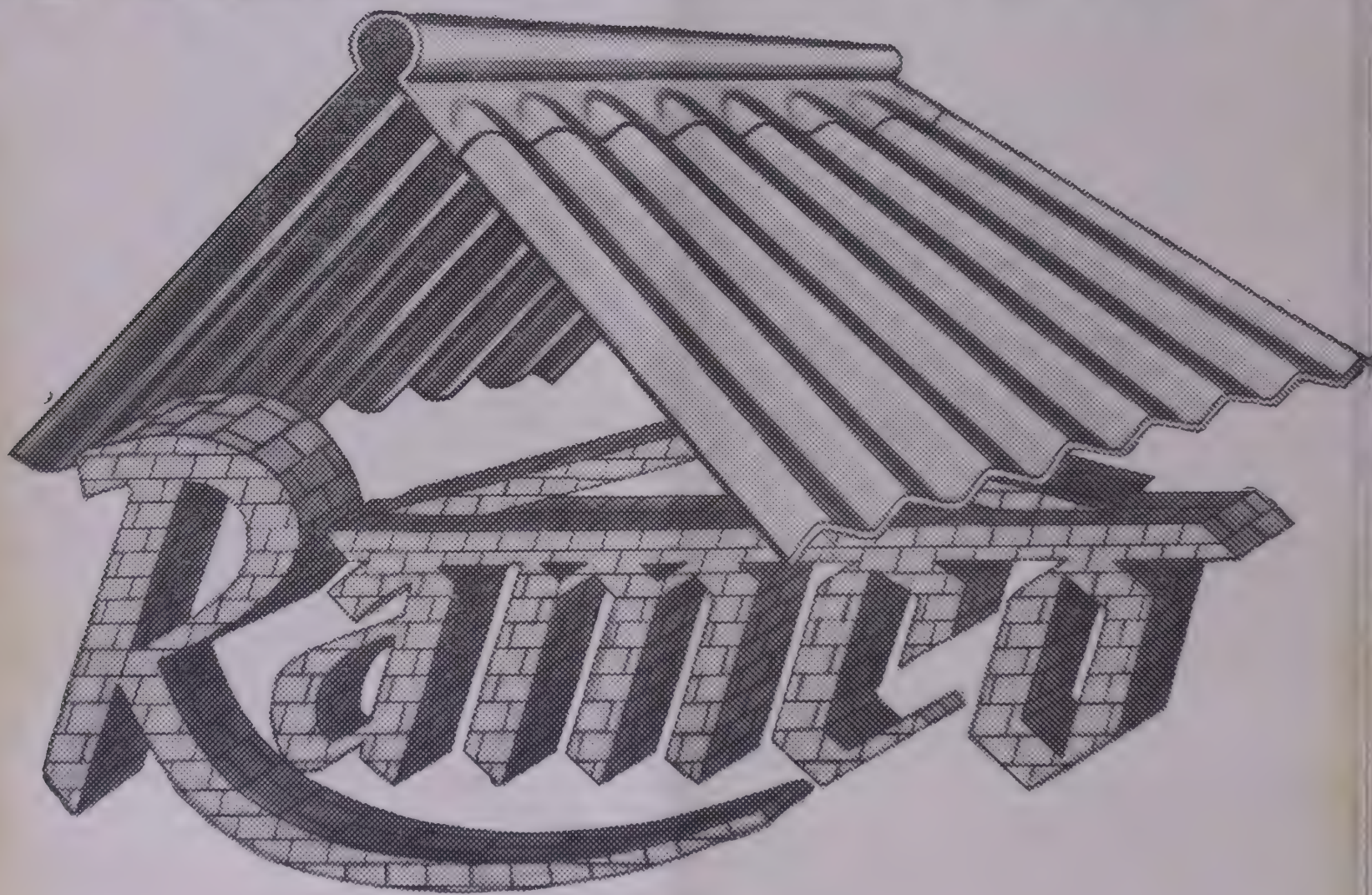
Perspective plan

It may also be stated here that a perspective plan document prepared by the ASEB puts the load demand of the State at 2,365 mw in the year 2,000 against which the board expects to generate 1,871 mw from the sources already identified. By that time, the estimated per capita consumption will also increase to 250 units from 96 units in 1984-85.

A close look at the plan expenditure particularly during the first two five year plans indicates that due attention was not given to generation of electricity at that time. In the First Five Year Plan the expenditure on power was only Rs 120.75 lakhs, which was 5.9 per cent of the total expenditure, while it was Rs 585 lakhs (10.7 per cent) in the Second Five Year Plan. The expenditure on power during the three other five year plans was as follows:—Third Plan Rs 2,750 lakhs (22.9 per cent), Fourth Plan—Rs 3,916

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lakhs (19.7 per cent) and Fifth Plan Rs 8,028 lakhs (28.9 per cent). The approved Sixth Plan outlay on power is Rs 37,030 lakhs (33.2 per cent).

No serious effort

It may be pointed out here that the geographical area of Assam was much bigger prior to reorganisation of the state in 1972. Industrial circles here attribute the present situation to absence of a well thought out plan for power development during the first two five year plans.

In the first ten years after independence, no serious effort was made to generate power though the State offered vast natural resources. It has been felt that even now most of the natural resources are allowed to go waste instead of using them profitably. The Brahmaputra in its 700 odd km route offers a plentiful hydel power source which may also open up avenues for pisciculture and irrigation. Naturally, it will involve huge funds and proper planning for generation of hydel power. The ASEB carried out an investigation covering 15 rivers of the North eastern region excluding the Brahmaputra, which revealed that about 12,500 mw of power can be produced from these rivers alone.

Apart from hydel resources, the natural gas to the tune of 1.80 million cubic metres daily produced by Oil India Ltd and ONGC in Upper Assam can also be used for power generation. At present, the ASEB uses only 0.6 million cubic metres of oil gas in Namrup thermal project and 90,000 cubic metres of ONGC gas for mobile generating sets of the Board. It is also using 3,88,000 cubic metres of gas produced by ONGC in Lakwa thermal station and 1,20,000 cubic metres in four recently installed mobile sets near the flaring points of the oil at Kathalguri.

Assam has an estimated coal reserve of 850 million tonnes of which 250 million tonnes are proved. A huge power station based on coal can be set up in upper Assam, though it would need to separate sulphur from the Assam coal. Thereby, imports of sulphur could be reduced, sources here point out.

Projects completed

Meanwhile, the ASEB has completed the following projects:

Namrup thermal power station

This station was commissioned in April 1965 with three units each

from Naharkkatiya oil fields of Oil India Ltd. One 12.5 mw gas turbine unit and one 30 mw steam turbine unit was added to the station in 1975-76. The station is at present drawing 29 million cubic feet per day of gas generating up to a peak of 105 mw.

Chandrapur thermal station.—

The 30 mw Chandrapur thermal station near Gauhati was commissioned in 1973 based on furnace oil/LSHS of Gauhati refinery. The steam turbine of the unit was damaged in March 1981 and was repaired in the early part of the current year.

Mobile gas turbine units.—

Three mobile gas turbine units each with a capacity of 3 mw were installed and commissioned in the ONGC oil fields at Galeky in upper Assam during April-June 1981. Four (4 X 3 mw) others have been installed at Kathalguri in upper Assam and are using gas delivered oil.

Lakwa thermal station.—

The scheme envisaged installation of three gas turbine units each, with a capacity of 15 mw. Two of the units were commissioned last year while the third unit is yet to be commissioned because there was a delay in supply of the damaged parts of the installation.

It may be mentioned that the ASEB has entered into a contract with the ONGC for supply of 2.3 lakh cubic metres per day of gas to the station. But, according to board sources, the ONGC is presently supplying only half of the contracted quantity of gas with which only one unit can be run continuously. However, the full quantity of gas is likely to be available from the current month after ONGC completes its effluent disposal plant.

Bongaigaon thermal station.—

The 2 X 60 mw Bongaigaon thermal project is based on coal from Bengal and Bihar and its first unit was rolled in February 1981. The second unit was commissioned in the early part of the current year.

On-going projects

Among the on-going projects are the 22 mw Namrup waste heat plant based on utilisation of exhaust of the gas turbine of the Namrup thermal power station and is likely to be commissioned by March 1983.

Bongaigaon thermal power station extension.—

Two additional sets each of 60 mw capacity are being installed at Bongaigaon and are ex-

pected to be commissioned by 1983-84.

Karbi Langpi hydel project.—

2 X 50 mw generating units will be installed with generating units imported from Japan under a yen credit. Civil work on the project is in progress and the project is scheduled to be commissioned in 1985-86.

Chandrapur thermal power station extension.— Installation of the second 30 mw unit at Chandrapur has been taken up and the project is expected to be commissioned in June 1984.

Borgolai thermal power project.— The Planning Commission has sanctioned two units each of 30 mw using Borgolai coal from the Margherita coal belt in upper Assam. The project will be ready by the end of 1986.

Besides, there are several projects including the waste heat project Lakwa (1x22 mw) Lakwa extension (15 mw), Dhansiri hydel project (20 mw), which are under implementation.

Six hydel projects are also under investigation which have been included in the perspective plan of the Central Electric Authority. These are—

Project	Capacity	Expected date of completion of investigation : submission of project report to CEA
Upper Borpani	2 x 30 mw	1982-83
Lower Kopili	2 x 30 mw	1983-84
Intermediate Borpani	2 x 30 mw	1984-85
Dalalma	10 mw	1982-83
Kaliani	33 mw	1984-85
Amring	25 mw	1984-85

All these projects will have a gestation period of five to six years and subject to sanction, benefits from these units can be made available between 1988 and 1992.

Transmission and transformation scheme:—The Planning Commission also sanctioned a five year transmission and transformation plan of the ASEB at an estimated cost of Rs 2860 lakhs. Subsequently, the Sixth Plan transmission work for an estimated value of Rs 4318 lakhs and additional transmission work amounting to Rs 2372 lakhs have also been sanctioned. All these transmission lines and substations are required for evacuation of power from the new generation schemes.

Ours is a Magnificent Land-2

*I was born unwelcome
into an overcrowded land
But I have shared my
home with the exiled.*



*I exist in a village
imprisoned by my fields.
But in quest of my spices
man discovered a globe.*

*I adorn my emaciation
with the tatters of penury.
But I have gifted the world
the luxury of fine muslin.*

*My cookfires I light
with the dung of cattle.
But I have taught man the
abstraction of algebra.*

*I grew up untutored,
unmusic'd and unsung.
But my syncopated sitar
has driven nations to frenzy.*

*I am surrounded by children
with malnourished minds.
But I have given man
his first philosophy.*

*I craft shoes that shod
three whole continents.
But I have just begun
to stand on my own bare feet.*

*I am named by many names
in a babel of tongues.
But I have adopted a name
by strangers given: India*

*I am sad.
But I am glad.
I am*

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magnificent future. Think Ahead.*

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From OUR CORRESPONDENT

PATNA

ELECTRICITY today touches the life of a citizen at various points. Be it agriculture, industry, trade or transportation, house or hospital, it provides the motive power to turn the wheels. Rather, it holds a key to the all-round socio-economic development of a developing country like India. For this, the country has immense potentialities to exploit. It has abundant rain-fed river water to be tapped and harnessed for generating enough hydro-electricity to sustain our needs, besides irrigating the parched lands. It is precisely for this reason that the generation of power has been assigned topmost priority in our plans for the development of the core sectors. The State of Bihar is endowed with vast potentialities in respect of development of power in the State. But the generation of electricity in this State has so far been very slow and unsatisfactory compared to the huge investment made over it.

To accelerate the development of power in Bihar, a separate department of electricity was created by the State Government in November, 1948 and an expenditure of only Rs 0.42 crore was incurred till the commencement of the First Five-Year Plan. During the First Five-Year Plan about Rs 8.27 crores were spent over the construction of 33 kv., 11 kv and light tension lines for tube well irrigation. With the creation of the State Electricity Board from April 1, 1958, all works and schemes relating to the development of power in the State were transferred under the control of the board, which took measures to strengthen and stabilise the power sector in the State. It did produce some wholesome results on various fronts. The board claims to have set about rehabilitating the power system by taking recourse to plant betterment programmes, procurement of imported spares for the existing thermal power stations and thorough analysis, supervision and monitoring. They also claim to have made a sharp recovery by boosting power generation from a paltry 150 mw to 400-500 mw within a short span. In fact, the board went

tion of 550 mw. But apparently the generation of power has dipped to dangerously low levels. It could have been hardly worse.

Inadequate capacity

To tide over the inadequate installed generating capacity as it obtains at present, the board is reported to be making all-out efforts to set up new power plants to meet the growing power requirement. A big stride was made in hydel generation when Unit No II (65 mw) of Subarnarekha hydel power station went on stream on October 18, 1980 thereby augmenting the total installed capacity of this power station to 130 mw. Power generation has gone up from 2,281 million units in 1980-81 to 2,581 million units in 1981-82 thereby registering an increase of 13 per cent. Keeping in view the available operating capacity, the plant load factor has improved from 43.6 per cent in 1980-81 to 50 per cent during 1981-82.

As the year 1982-83 has been declared 'Year of Productivity', the target of generation for the current year has been pegged at 3,269 million units. It would mean plant load factor on the basis of the available operating capacity of more than 60 per cent compared to the national average of 46.7 per cent. Obviously, this appears to be a highly ambitious target. The board will have to strive very hard to achieve it, especially when the outlay on power development in Bihar under the Sixth Five-Year Plan has been fixed at Rs 800 crores. This represents an increase of 165 crores over the total investment made during the earlier three decades, as well be apparent from a close scrutiny of the plan achievement of the Board as detailed below.

As the board was created on April 1, 1958 it took up the onerous task of development of power in the State right from its inception in the mid-stream of the Second Five-Year Plan (1955-61).

By the end of the Second Plan (1956-61), the board was supplying energy to 694 towns and villages covering about 24,000 consumers in North Bihar and 1781 towns and

villages covering about 93,000 consumers in South Bihar. In North Bihar, power supply was made from 13 diesel stations with a total installed capacity of 11 mw; while in South Bihar 75 mw of power was being purchased from D.V.C. for distribution. The most and important step taken by the board in the Second Plan, however, was initiation of measures for the establishment of thermal power stations at Barauni and Patratu, and for extension of high tension lines for which originally no provision had been made in the Second Plan. Expenditure incurred on power development during the Second Plan was Rs 16.55 crores. Thus by the end of the Second Plan (1956-61) the board had made a total investment of Rs 25.24 crores.

Increased investment

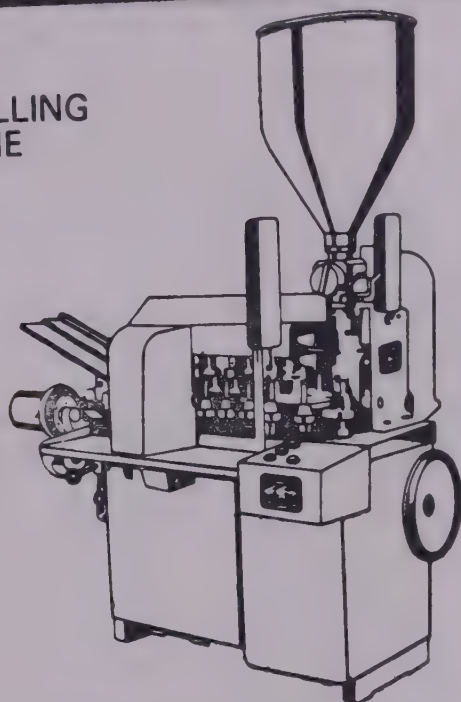
During the Third Plan (1961-66), the board commissioned three 15 mw sets at Barauni and more or less completed the construction of one 50 mw set at Patratu. There was also extension of high tension and low tension lines. The number of consumers served by the board rose to 2,31,409 and the number of towns and villages served rose to 3,942. Expenditure incurred on the execution of power development during the Third Plan was Rs 81.33 crores. Thus by the end of the Third Plan (1961-66) the board had made a total investment of Rs 106.57 crores.

Then followed the period of three successive Annual Plans (1966-69) during which period an additional capital investment of Rs 57.36 crores was made, making the total progressive capital outlay of Rs 163.75 crores up to March, 1969. Three units of 50 mw each were commissioned at Patratu. The construction of transmission lines and sub-station made considerable progress. The need for energisation of pumping sets acquired a special urgency under the stress of severe drought that affected the State during the period, July 1966 to June 1967 and, accordingly, there was extension of rural electrification. As against 10,556 pumps energised during the first three plan periods, over

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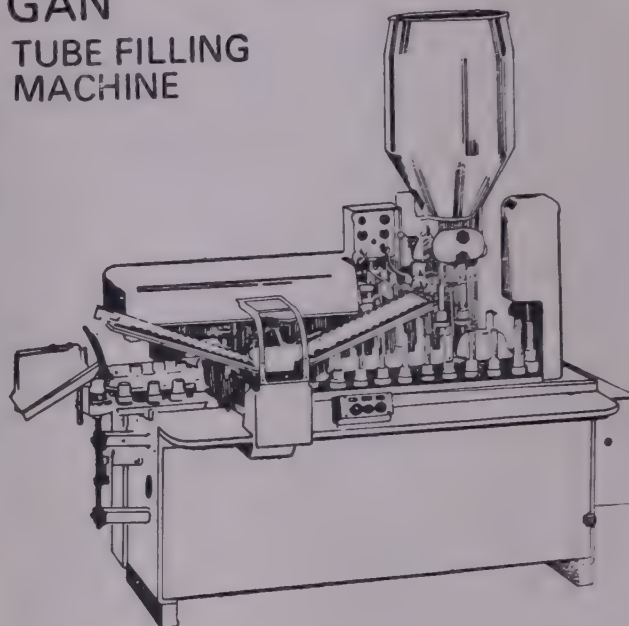
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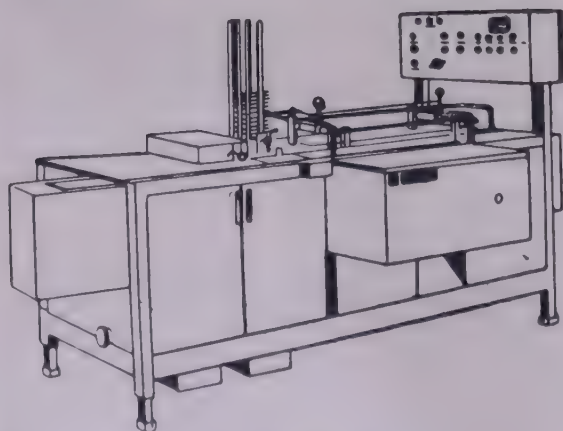
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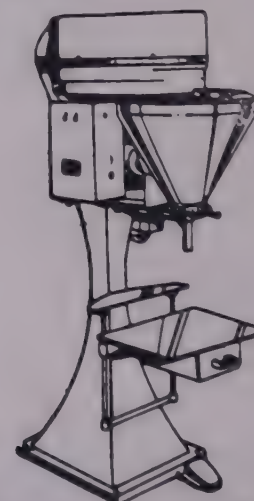
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0,000 pumps were energised during these three years. The power supply position, however, remained generally unsatisfactory due to power shortage in some areas, frequent power interruptions and prevalence of low voltage conditions over the greater part of the state caused by rapid expansion of rural electrification and the main transmission lines not having been developed side by side, due to constraint of resources.

Fourth and Fifth Plans

During the Fourth Plan (1969-74) an additional capital investment of Rs 127.90 crores was made, making the total progressive outlay Rs 91.65 crores up to March 1974, by this time 145 mw of generation capacity consisting of (3x15) + (2x50) mw sets at Barauni thermal power station, 400 mw of generation capacity consisting of (4x50) + (2x100) mw sets at Patratu thermal power station and 15 mw capacity consisting of (3x5) mw at Kosi hydel power station were already in operation. Thus by March 1974, 560 mw of generation capacity, 558 km of 220 kv transmission lines, 2,376 km of 132 kv lines, 7,247 km of 33 kv lines, 28,218 km of 11 kv lines were in operation. A total of 5,17,222 consumers were connected to the system, 9,814 villages were electrified and 96,922 pump connections given. On the construction side, work was in progress of Subranarekha hydel project consisting of 2x65 mw sets, Patratu thermal extension project 6th and 8th units of 110 mw each. Besides work on transmission and distribution lines, and rural electrification.

Then followed the Fifth Plan (1974-79) during which period an additional capital investment of Rs 66.66 crores was made, making the total progressive outlay Rs 558.30 crores up to March 1979. By that time 740 mw of generation capacity consisting of (3x15) + (2x50) mw sets at Barauni thermal power station, 510 mw of generation capacity consisting of (4x50) + (2x100) + (2x110) mw sets at Patratu. Thermal power station, 20 mw capacity consisting of (4x5) mw at Kosi hydel power station and a new hydel power station consisting of one 65 mw set at Subernarekha were already in operation. Thus by March 1979, 740 mw of generation capacity, 779 km of 220 kv transmission lines, 3,061 km of 132 kv lines, 8808 km of 33 kv lines, 39,881 km of 11 kv lines were in operation. A total of 8,33,460 con-

tem, 18,703 villages were electrified and 1,43,615 pump connections given. On the construction side, work was in progress on Subernarekha hydel project (65 mw second unit), Patratu thermal project, 8th, 9th and 10th unit each of 110 mw capacity, Barauni thermal extension project 6th and 7th unit each of 110 mw and on a new thermal station with two units each of 110 mw at Muzafferpur. Besides, work on various transmission and distribution network and rural electrification were in progress.

Then followed the Annual Plan (1979-80) during which period an additional capital investment of Rs 76.60 crores was made, making the total progressive outlay Rs 634.90 crores up to March 1980. By that time 850 mw of generation capacity consisting of (3x15) + (2x50) mw sets at Barauni thermal power station, 620 mw of generation capacity consisting of (4x50) + (2x110) + (2x110) mw sets at Patratu thermal power station, 20 mw capacity consisting of 4x5 mw sets and 65 mw set at Subernarekha hydro electric project were already in operation. Thus, by March 1980, 850 mw of generating capacity, 779 km of 220 kv transmission lines, 3,111 km of 132 kv

transmission lines, 8,711 km of 33 kv lines, 39,597 km of 11 kv lines and 52,115 km of light tension lines were in operation. A total of 8,69,627 consumers were connected to the system, 19,715 villages were electrified and 1,51,985 pump connections given. On the construction side work was on completion of another 65 mw set at Subernarekha and work was in progress at Patratu thermal extension units nos. 9 and 10, each having 110 mw capacity, Barauni thermal extension unit nos 6 and 7 having 110 mw capacity and Muzagerpur thermal extension units nos 1 and 2 with capacity of 110 mw each.

Now follows the Sixth Plan (1980-85). The working group on power constituted by Planning Commission, Government of India to finalise the outlay of Sixth Plan (1980-85) had recommended Rs 754.57 crores for the power sector of the state. At the instance of the State Government, the Planning Commission has agreed to increase the Sixth Plan Outlay by another Rs 45 crores approximately making the total power sector outlay for Sixth Plan to Rs 800 crores approximately. During this plan it is proposed to electrify approximately 16,000 villages and energise 1,81,000 pump connections.



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GUJARAT

Slide back on power front

From OUR CORRESPONDENT

AHMEDABAD

GUJARAT owes its prominent place on the industrial scene largely to rapid power development in the State. The state's imaginative power development schemes have transformed Gujarat from an economically backward state at the time of the state's reorganisation 22 years ago to an industrially prosperous state.

Electricity available in the state until 1960 was meagre. There was only a single 66 kv line from Uttran to Ahmedabad, and a few stray and scattered distribution lines. The 67.5 mw power station at Uttran was the largest power station of the Gujarat Electricity Board. Many district and taluka headquarters were without the luxury of electricity, not to talk of the state's 16,000 odd villages.

Before May 1960, the power position in Gujarat and Saurashtra was as follows:—total installed power generation capacity, including that of the Ahmedabad Electricity Company, was 315 mw; electrified towns and villages 571; agricultural consumers (wells) 3,901; large industries (high-tension) 53; small industries (low tension) 5,007; electricity connection for domestic use 1,07,260; capital investment Rs 24 crores; per-capita consumption of power 52 units.

On May 1 1960, the Gujarat Electricity Board (GEB) with its head office at Baroda was formed, to take charge of the newly formed State's power needs. Since no suitable accommodation was available for its 150 employees, who had come from Bombay, 23 of them were housed in the quarters of the Baroda sub-station, with roofs of asbestos cement sheets. The board began with these humble beginnings and a dearth of qualified personnel, of engineers and stenographers when it began.

Mr H. M. Patel, one of the ablest members of the ICS, was appointed the first chairman of the GEB. The

for the activities of the board are reflected in its present day good work. Ever since there has been no looking back.

The GEB went about installation of one thermal station after another in quick succession. It constructed thermal stations at Dhuvaran, Ukai and Gandhinagar and a hydro-electric power station at Ukai. It enhanced its power capacity by obtaining atomic power from the Tarapur station. Thus, the installed power capacity of the State increased seven-fold from 315 mw in 1960 to about 2,300 mw in 1980.

The growth represented a compound growth rate of 10.4 per cent, comparing quite favourably with the corresponding national growth rate of 9.4 per cent for power.

Phenomenal increase

The present large-scale industrial and agricultural development of the State would be unthinkable without this phenomenal increase in power generation. From a humble beginning of a mere 315 mw in 1960, the State's power generation capacity grew to 618 mw by the end of Fourth Plan (1969-74), to 1,142 mw by the end Fifth Plan (1974-79), to 2,560 mw at the present stage of the Sixth Plan. The state's capacity is expected to rise to 4,560 mw by the end of Sixth Plan (1980-85).

The development of a transmission network is also important and must keep pace with the growth in generation capacity. The transmission net make has the expanded nearly 10-fold to 15,461 km and a 400 kv transmission system is now being introduced for the first time in Gujarat.

In order to extend the benefits of electricity to the rural public, a massive rural electrification programme has also been taken up. During the Sixth Plan (1980-85), the government has decided to electrify all the remaining 7,408 villages and to energise 1,25,000 pump sets.

Power demand in Gujarat has

has been actually generating only about 1,900 mw against its installed capacity of 2,560 mw. According to an estimate made by the working group of the Planning Commission and allowing a 10 per cent margin in accordance with the guidelines set up by the Prime Minister, the Gujarat's power demand is expected to reach 3,186 mw by the end of Sixth Plan (1985). An installed capacity of 4,822 mw is needed to meet this demand.

Deficit

According to a recent estimate of load projections by the Gujarat Electricity Board, the deficit in availability of power as against the likely demand for power in Gujarat by the Sixth Plan-end will be 562 mw. On the other hand, on completion of various approved schemes now under implementation, in addition to availability of 187 mw allocated to Gujarat from the Korba super thermal power station and retirement of old sets totalling 218.5 mw, the actual installed capacity at the end of the Sixth Plan would be 4,260 mw. This would leave a deficit of 562 mw uncovered.

For making up this deficit, the GEB has proposed the following new schemes with the Central electricity authorities (a) installation of two 210 mw sets at the Gandhinagar thermal power station, (b) replacement of old and small sets by a single 120 mw set at the Uttran thermal station, (c) installation of a third set of 60 mw at Panandhro in Kutch, making use of the locally available lignite deposits. All these three schemes would have a total installed capacity of 600 mw, which will be enough to bridge the gap.

In 1979-80, a 210 mw unit No 4 at the Ukai thermal power station extension was commissioned. Recently, in March 1982 the first 210 mw unit of the Wanakbori thermal power station, which is under execution, was commissioned.

At present schemes aggregating 1,945 mw are under execution. They are: (a) Wanakbori thermal power

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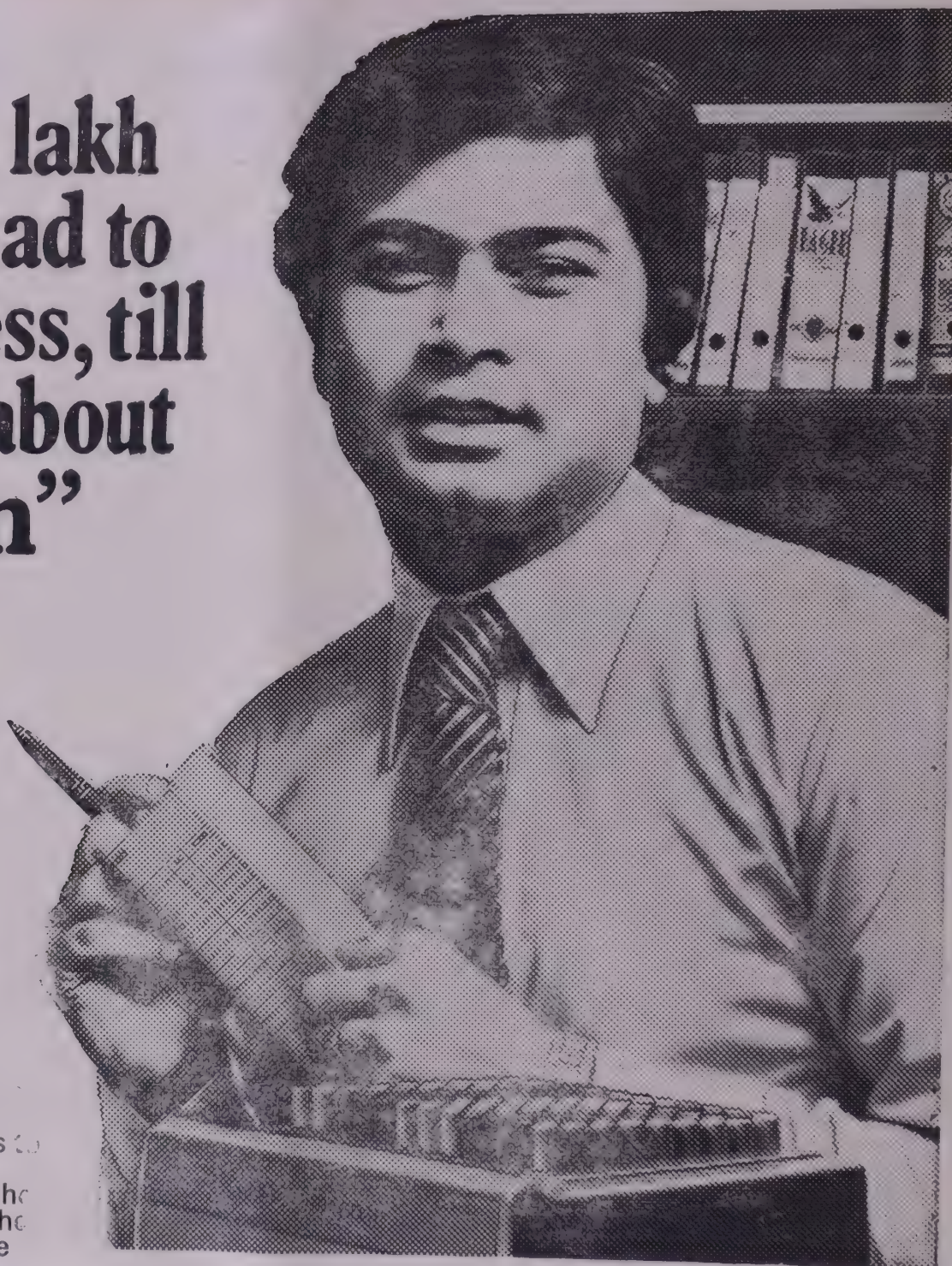
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tation—630 mw, (b) Wanakbori thermal power station extension—339 mw, (c) Ukai thermal power station extension unit No 5—210 mw, (d) Kadana hydro electric project—20 mw, (e) Ukai left bank canal power house—5 mw, (f) Lignite-based thermal unit at Panandhro—20 mw, (g) Ahmedabad Electricity Co Extension—110 mw, (h) Sikka thermal power station—120 mw, total 1,945 mw.

During 1982-83 the following works would be implemented: The first 210 mw unit of Wanakbori thermal station was commissioned in March 1982. The remaining two units, each of 210 mw, would be commissioned during 1982-83.

It is significant that the demand for power is growing much faster than the installation of new generation capacity. Even the massive capacity expansion during the Sixth Plan would not be enough to cope with the rising demand. Previously, the power position in Gujarat was comfortable both in terms of availability of power and reliability of power, which is no longer the case.

In the past few years, the position has materially changed. Gujarat which had stolen a march over other states in this vital sector had slid back. Frequent recurrence of breakdowns in plants and machinery of the GEB, leading to sizable power cuts ranging between 30 to 50 per cent normally and even 100 per cent occasionally, on industries, in addition to load shedding and staggering highlights the gravity of the situation.

As a matter of fact, the power supply position in Gujarat is now as bad as in many other states. Despite increased generation efficiency—said to be the highest in the country—power curbs in Gujarat led to a loss of 7.9 lakh mandays in three cities of Ahmedabad, Surat and Baroda in the first ten months of 1981.

To meet this situation, the authorities have already chalked out many important long-term plans covering the Seventh Plan and partly the Eighth Plan periods. Power projects have a long gestation period. It takes five years normally for completion of thermal power projects and eight to ten years for hydro and atomic projects. It is

Gujarat's achievement on the power front

Particulars	1960-61	1978-79	1979-80	1980-81
Installed capacity (mw)	315	2,188	2,384	2,384
Length of transmission lines (c. km—33 kv & above)	1,681	14,268	14,837	15,461
No. of substations (33 kv & above)	42	221	225	234
Electrified towns and villages	716	9,497	10,913	12,568
Electrified wells and tubewells	5,556	173,730	198,785	225,687
Total No. of consumers	140,281	2063,938	2300,851	2543,155
Electricity sold (kwh x 10 ⁶)	444.14	5883.6	6243.8	6516.7
Per-capita consumption (kwh)	48	217	226	226

Tentative projections

According to tentative projections, the state's power demand at the end of the Seventh Plan would be 5,607 mw. To meet this demand, the installed capacity required would be 8,546 mw. Allowing further retirement of old sets aggregating 247.5 mw during 1986-90, the installed capacity available from the existing stations and sanctioned schemes would be 4,612.5 mw. This means that new generating capacity of the order of 3,933.5 mw will have to be added during the Seventh Five Year Plan.

Planning for this addition of generating capacity has already been taken on hand. Gujarat and Madhya Pradesh have proposed to set up a joint pit-head thermal power station at Bandhav, comprising of four units of 500 mw each. Gujarat's 50 per cent share in this project would be 1,000 mw. Gujarat's share from the Narmada hydro project is 16 per cent. In addition, the Department of Atomic Energy has planned a nuclear power station at Kakrapar, having two units each of 235 mw. The benefit of this scheme is expected to be available in the early part of the Eighth Plan.

In addition, 170 mw is expected to be received from the Korba super thermal power station extension. To meet the balance power requirements, a project report for installation of four units of 500 mw each capacity, on the bank of Narmada river has been submitted to the Central electricity authority and Planning Commission for approval.

Coal for power stations in Guja-

tant collieries of central India. For overcoming transportation bottlenecks, the Gujarat Government has prepared a feasibility survey for setting up of a coal slurry pipeline project.

In addition, the Government is also considering non-traditional sources of electricity like tidal energy, geo thermal energy and wind power.

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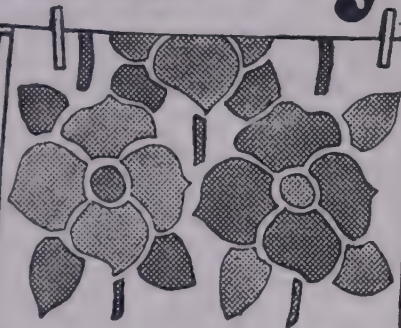
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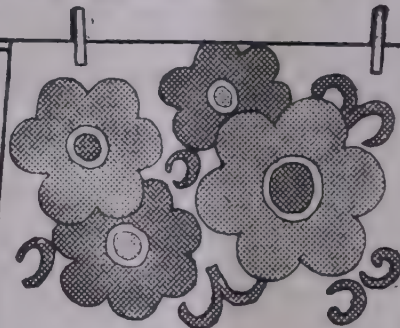
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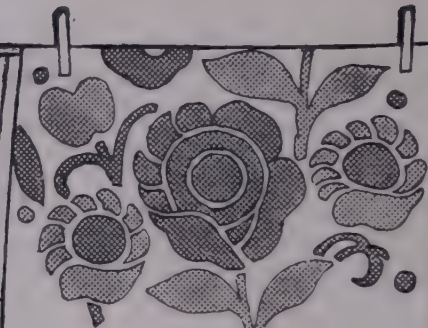


BASIC DYESTUFFS

- Auramine O
- Malachite Green
- Methyl Violet 2B
- Rhodamine B

PURIFIED BASES

- Rhodamine B
- Methyl Violet 2B



ALCOHOL SOLUBLES

- Auramine OF
- Rhodamine B

INTERMEDIATES

- N,N-Dimethylaniline
- Diethyl meta amino phenol
- Resorcinol



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HARYANA

More funds for power generation

From OUR CORRESPONDENT

CHANDIGARH

THE power situation in Haryana has been quite satisfactory during the past three or four months and there have been no supply cuts to agriculture, industry or domestic consumers. Recent rains have removed fears of shortages in this part of the year. Power availability is expected to increase by 24 per cent in 1982-83 from 4565 million units last year to 5630 million units, the major increase being in the thermal sector where availability will be 2170 million units against 1645 million units in 1981-82. In fact, 85000 new electric connections are expected in 1982-83. Last January restrictions were imposed in both rural and urban areas, but these were removed on March 2 since when the position has been satisfactory. Science instruments manufacturers at Ambala however, suffered heavy power cuts until February last.

For the first five years after its emergence as an independent political entity (on November 1, 1966), as a result of the partition of composite Punjab under the States Reorganisation Act, Haryana had surplus power. The small 44,222-sq km State was then under-developed, with its agriculture dominated by traditional practices and its industry in infancy. At that time the State was unable to utilise its share of power from the Bhakra Nangal project, its total daily consumption being about 17 lakh units and the number of energised tubewells being only around 20,000. But with the progressive policies pursued by the makers of Haryana, with whom the sturdy agriculturists fully cooperated in the development process, the demand for power increased, steadily and slowly at first, but rapidly after a few years.

The demand for electricity increased to 23 lakh units per day in 1967-68 (the first full year of the State) to 24 lakh units in 1968-

then to 33 lakh units daily in 1970-71. Since that year it has been a story of demand outstripping supply, and shortage become a familiar phenomenon, especially in alternate years and whenever the generation at Bhakra (almost the only source of power for Haryana at that time) fell owing to the depletion of water in the reservoir. The shortage was acute during the sowing and harvesting seasons when the demand increased. The absence of hydel resources in the state and of any dependable thermal plant in those years often created acute power shortages.

Thermal power then came to the State's rescue. To begin with, the State was given a share of the output of the Indraprastha Thermal Power station in Delhi. Haryana's first thermal station was set up at Faridabad in November, 1974, with a 60 mw capacity; two years later another unit of the same capacity was added. By the end of 1978 Haryana started receiving its share of the output of the Beas power projects (two units of 165 mw each at Dehar, and three units of 60 mw each at Pong). Haryana, as a partner in the Beas project, has a 32 per cent share in the power generated at Dehar units and a 16.6 per cent share in the output of the Pong power station. According to the estimates prepared by the State's engineers at the time, the resultant power availability of about 100 lakh units daily would suffice for meeting its total requirements. For about two years the power position was more or less satisfactory, with cuts only during the peak season or during the peak hours.

First thermal plant

Since the demand for power was growing continually, a thermal plant was set up at Panipat; two units of 110 mw each started functioning in 1978-79, together with a third

unit added to the Faridabad thermal station, provided considerable relief to the consumers, domestic, agricultural and industrial. The total output of the Faridabad plant has risen from 135 mw to 195 mw. Additional power became available to Haryana also from the two new units at Dehar of 165 mw each, and a fourth unit of 60 mw at Pong.

In stage-II of the Panipat plant two more units of 110 mw each were taken up. To augment the supply, the State Electricity Board tapped Haryana's only hydel source, the Western Yamuna Canal, near the border with UP, and work is in progress there on a 64 mw unit plant.

Haryana was the first state in the country to achieve 100 per cent electrification of its villages and small towns, 6796 in all. This was done in 1970.

The consumption of electric power in Haryana has risen rapidly—from 16,072,72 lakh kwh in 1975-76 to 24,145,52 lakh kwh in 1979-80, but owing to certain difficulties (mostly the drastic cuts) the consumption fell to 23,421.50 lakh kwh in 1979-80. The total annual per capita consumption of electricity in 1978-79 was 211.41, but it fell slightly to 201.71 in 1979-80. The drastic power cuts necessitated by the shortages in supplies caused this decrease in consumption. The number of power connections has increased from 8,48,113 in 1976-77 to 10,93,630 in 1979-80. The total number of pending applications at the end of 1979-80 was 77,341 a broad indication of the demand supply gap.

The number of tube-wells energised rose to 1,44,000 by early 1976. The total number of energised tube-wells increased to 2,04,347 up to 1979-80. The number rose by about 22,000 in one year alone—78-79 to 79-80.

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Sixth Plan programme

The Sixth Plan provisions for power generation are as follows: agreed outlay (1980-85) Rs 1,338 crores; actual expenditure in 1980-81 Rs 432 crores; outlay for 1981-82—Rs 503 crores; approved outlay for 1982-83—Rs 765 crores.

During 1981-82 the peak total availability of power in Haryana (both thermal and hydel) was 914 mw; the hydro share was 608 mw, and the thermal 306 mw. The deficit in the peak season was about 76 mw. The total energy requirement in the year was 4,676 million units and the total energy availability was put at 4,863 million units, indicating a surplus of 187 million units (4 per cent of the total availability). But this was a temporary phenomenon. The State Electricity Board anticipates a deficit of 56 million units (one per cent of the total availability) in 1982-83.

The present break-up of the daily power supply is as follows: 26.7 lakh units from Bhakra; 21.87 lakh units from Dehar; 6.31 lakh units from Pong; 10.66 lakh units from the Delhi Electric Supply Undertaking; 9.77 lakh units from Panipat thermal station. This totals up to 95.11 lakh units per day. In April and May, 1982, (partly because of the unseasonal rains) there was a fall in demand and this availability looked adequate, but the peak load average in the State is 140 lakh units. Experts fear that the power deficit in the State will continue up to 1987-88, possibly longer, which means that power shedding and both scheduled and unscheduled cuts are likely to continue for many years to come.

Power schemes for future

1. An 800 mw thermal plant at Yamunanagar (cleared in June, 1982) and a Himachal Pradesh-Haryana joint hydel project (capacity 1020 mw) at Nathpa-Jhakri in Himachal territory are under way. The Nathpa-Jhakri scheme is being closely examined by the Centre and is likely to be cleared soon.

2. Haryana will get a share from the power generated at the centrally-sponsored thermal and hydel projects at Baira, Siul, Salal and Singrauli.

for power generation is being formulated by the State Electricity Board, keeping in view the demand-supply projections for 2000 AD. Suggestions have been made to advance the commissioning dates of various units and for increasing the existing generation capacities as well as ensuring the optimum levels of efficiency. The state authorities feel that the Centre should allocate more power to the State from central projects in view of the fast-increasing requirements and for maintaining the tempo of progress.

4. The Electricity Board has earmarked Rs 48 crores for important on-going power projects, such as the Panipat thermal and the Yamuna hydel project. Rs 7.65 crores has been earmarked for Dehar, Pong stations of the Beas project in which Haryana is a partner. The major portion of the additional allocation is for the Panipat thermal plant expansion (Rs 35 crores). The three additional units of the plant are expected to be completed in 1984 and 1985. The station is expected to supply, on an average, 70 lakh units of additional power daily to the State.

Like Punjab, Haryana is eager to have an atomic power station and the state authorities have again appealed to the Centre to sanction such a plant within its territory so that the problem of power may be solved for good. The Central authorities are believed to have made enquiries regarding the feasibility resource mobilisation and suitable sites for such a power station. The Centre is reported to have accepted the proposal in principle, provided certain requirements are met. The sites being considered are Yamunanagar (a canal flows nearby) or Gurgaon (because of the proximity of the Kotah lake).

Since several states are asking for atomic stations, there is no certainty about a plant being sanctioned for Haryana. In case Haryana does not succeed in getting an atomic power plant, it would press for another super thermal plant to meet the growing demand for power. A wide supply-demand gap is feared because the 880mw thermal station (estimated to cost Rs 116 crores) being set up near Yamunanagar will

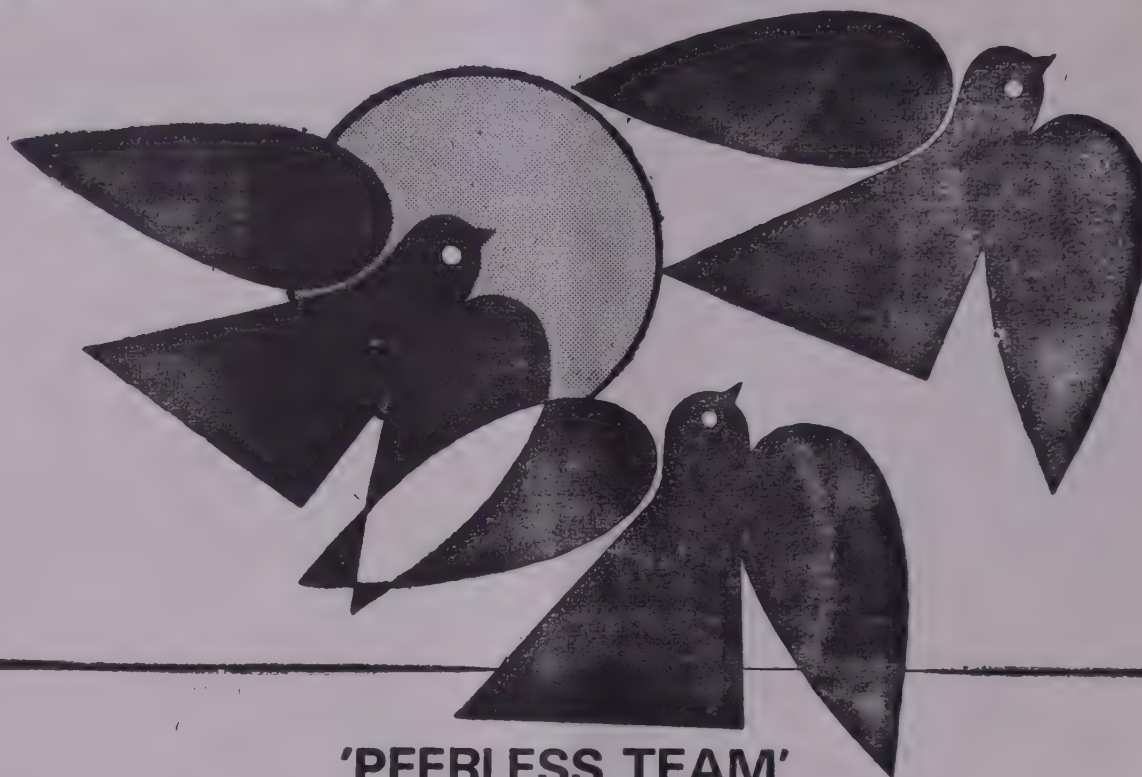
Despite Haryana's handicap in power generation, the State Electricity Board's optimism is boundless. The latest example was provided on June 16, 1982, when the chairman said a "package plan" had been drawn up to make the state surplus in power within the next three years with the existing level of infrastructure. The emphasis will be on better utilisation of the existing equipment. He has urged the board engineers to immediately initiate steps to reduce the cost of additional power generation at the Panipat and Fariabad stations by making minor changes in designs and operational handling of the plants.

Meanwhile steps are being taken to reduce the transmission and distribution losses of power by 2½ per cent in 1982, but even after this overdue improvement, such losses would be 19 per cent. Largely because of the expansion of power lines to all rural areas that line losses were 27.3 per cent 10 years ago.

Free from power cuts

The Haryana State Electricity Board authorities are occasionally optimistic of meeting the power requirements of the consumers of various categories. Fortunately, 1982 has been a year free from crippling power cuts so far. But whenever a realistic, long-term assessment is made, the outlook on the power front looks gloomy. For instance, in his address to the Haryana industrialists on May 19 this year the Electricity Board chairman said the additions to the generating capacity recommended by the Planning Commission for the period 1978-83 was only 636 mw. The total generation capacity available with the State by 1983-84 would be 1,482 mw, leaving a huge gap of 718 mw between supply and demand. By the end of 1988-89 this gap could widen further to 1,700 mw even after taking into account further power allocations of about 320 mw by then from the central projects at Singrauli (22 mw), Bairasul (55 mw) and Salal (66 mw). The Centre has yet to clear several projects submitted by the State. A long-term perspective plan for power is under preparation, keeping in view the

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PRASA

HIMACHAL PRADESH

Power position satisfactory

From OUR CORRESPONDENT

HIMACHAL Pradesh has an estimated hydel potential of over 12,000 mw in its river systems namely; the Ravi, the Beas, the Sutlej and the Yamuna. So far 3,307.5 mw of hydel power has been harnessed in the State out of which 127 mw is under the control of the State Government and the rest of the projects like Bhakra Dam (1050 mw), Pong Dam (360 mw), Beas-Sutlej Link (990 mw) and Baira Siul project (180 mw) though located within Himachal Pradesh are operated and maintained by the Bhakra-Beas Management Board and the National Hydro-electric Projects Corporation.

After Himachal Pradesh was carved out as a separate administrative unit in April 1948, it could not arrange sufficient funds for execution of hydel projects to harness the vast hydel potential in the area because of its age-old poverty and backwardness. Though it made a humble beginning in the execution of the Giri-Bata hydel project in 1967, while Himachal Pradesh was a union territory on its own, the State Government started giving due attention to power generation only after Himachal Pradesh attained statehood in 1971.

The major impediment in the way of the exploitation of the vast hydel potential and execution of hydel projects was the paucity of funds. Besides seeking financial assistance from the Government of India, the State Government thought of collaborating with the neighbouring states for execution of various hydel projects in Himachal Pradesh. The State Government has already signed an agreement with the Government of Haryana and the National Hydroelectric Projects Corporation for the execution of the Nathpa-Jhakri hydel project in the Simla district. The State Government has been holding talks with the governments of Punjab and Rajasthan for collaboration in the execution of some other hydel projects and both the state governments have shown their willingness to cooperate with the Himachal Pradesh Government.

At present the State Government is earning over Rs 1 crore on account of sale of power to the neighbouring states

the country has suffered immensely due to increasing power shortage, a state like Himachal Pradesh which can generate cheap and clean power from its vast sources of energy, is faced with a shortage of funds.

On-going projects

The State's Plan outlay for power generation during the Sixth Plan period (1980-85) is about Rs 120 crores. Thus the State will hardly be able to stretch the capital outlay on its on-going hydel projects like Sanjay Vidyut Pariyojana (120 mw), Andhra (15 mw), Binwa (6 mw), Rongtong (2 mw), and new generation schemes such as Holi (4.5 mw), Thirot (3 mw), Neogal (4.5 mw), Baner (6 mw), Gaj (6 mw), Kholi (10 mw), Bassi state-III (60 mw) and Nathpa-Jhakri (1,020 mw) as joint sector projects.

With the increased net-work of transmission lines within the State, power from these projects when completed will be utilised within Himachal Pradesh so that the Government gets additional direct revenue.

Investigations are being carried out on a number of hydel projects in order to exploit the vast hydel potential available in the State. Some of the major, medium and micro hydel projects which are under investigation at present include Kol Dam project (600 mw), Nathpa-Jhakri (1,020 mw), Chamera (640 mw), Dadahu Dam (40 mw), Parbati hydel project (1,900 mw), Largi (140 mw), Malana (140 mw), Baspa (50 mw), Gaj (10 mw), Baner (6 mw), Holi (4.50 mw), Thirot (3 mw), Neogal (4.5 mw), Khauli (10 mw) and Duhangan (24 mw). The two hydel projects, namely Sanjay Vidyut Pariyojana on the Baba tributary of the river Sutlej in Kinnaur district and the Binwa hydel project based on Binwa Khad, a tributary of river Beas in Kangra district are currently under execution.

Per capita consumption

While present per capita consumption of electricity based on 1978-79 figures in kwh is 55.52, the industrial power requirement of the State by the year 2000 AD could easily increase from the present 117 mw to any figure up to 4,000 mw or more. There can be no two opinions

efforts for additional power load development within the State with the vast hydel potential available, for the economic development of Himachal Pradesh.

Besides the Government of India, some neighbouring state governments have shown their keenness to collaborate with the Himachal Pradesh Government in the execution of various hydel projects dotted all over Himachal Pradesh for ensuring power in the Central sector or feeding the power to the hungry neighbouring states in the northern region. Besides looking to the Central and the state governments, the Himachal Pradesh Government will have to utilise the deposits of commercial banks within the State on its productive hydel projects. According to some estimates, the State Government will be able to raise capital to the tune of Rs 70-80 crores annually from the commercial banks.

Additional revenue

The share of Himachal Pradesh from the power generated from the hydel projects located within the State but operated and controlled by other agencies, if settled immediately, would yield the State an annual revenue of Rs 20-25 crores. This revenue could be easily utilised to finance various hydel projects in the State. The Central and the state governments who are keen to collaborate with the Himachal Pradesh Government in the execution of various hydel projects in the State, should make available the necessary funds in a phased manner to the State Government, for the speedy execution of the hydel projects. In the larger interest such projects should be executed at the earliest in order to supply power to the neighbouring power-hungry states. Whereas, the State would benefit from the sale of electricity generated from these projects the beneficiary states would get numerous indirect benefits.

The State Government has not set up any committee so far to go into the power situation in the State, as Himachal Pradesh is almost self-sufficient in its power requirements. At present no area of the State is faced with power shortage and in fact the State is in a position to cope up with the growing power needs, both in the industrial and agricultural sectors. At present the State is selling

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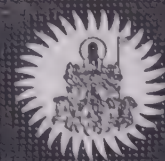
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JAMMU & KASHMIR

Situation disquieting

From OUR CORRESPONDENT

SRINAGAR

AMONG the pioneers in the generation of hydel energy, Jammu and Kashmir has remained woefully deficient in power all these years. This, despite the fact that the first small hydel station in the state was set up as early as 1935 at Moharra in the Kashmir valley and investigations for tapping the hydel potential of the mighty Chenab running through the Jammu province were started soon hereafter.

Not that the availability of power has not increased. But, supply has remained pitifully behind demand, particularly in the winter months when generation falls steeply because of the depletion in the discharge of rivers. The situation is not going to show any improvement for some years more as, according to the latest available report of the state electricity board, "no new generation is expected to be added to the state system till the end of the Sixth Plan as funds have not been allotted for new schemes".

Power generation in the state increased from the pre-independence level of 6.5 mw to 208 mw by the end of 1980. The principal suppliers to the power supply system are the 105-mw Lower Jhelum hydel project and the Upper Sindh hydel project which has an installed capacity of 22.5 mw. Included in the list of power generating projects is the 22.5-mw Kalakote thermal power project in Jammu which, however, is worked only in extreme situations because of the high generation cost of over one rupee per unit. The net availability is, therefore lower than the installed capacity. In view of the fact that not a single unit has been added to the power supply system in the State since 1980, the dependence on import continues. However, since the northern grid cannot meet the State's power deficit in full, the authorities resort to shedding, restricting domestic consump-

tion to less than four hours a day and industrial consumption to less than six hours a day.

Projected availability

The situation in respect of the current and projected availability of and demand for power in the state is indicated by the State Electricity Board as shown in table below, availability including scheduled share from Bhakra management board:

According to the former State Works and Power Minister, late Mr Sonam Narbu, the 10th annual load survey had revealed that the peak requirement of Jammu and Kashmir was expected to be of the order of 585 mw in 1988-89, 1,095 mw in 1993-94 and 1,382 mw in 1995-96. In terms of energy, the requirement was estimated at 2,890 million units in 1988-89, 5,450 million units in 1993-94 and 6,900 million units in 1995-96. The estimates were apparently based on a perspective plan formulated earlier by a former Commissioner of Power Development, Mr M. S. Gill. The plan covered the 1971-92 period and envisaged "systematic surveying and investigation of all possible hydel resources in the State and taking up of as many schemes as possible to meet an estimated requirement of 1,000 mw by 1981-82".

Larger share

An important component of the plan was the expected commissioning of the first unit of the 115-mw Central sector Salal hydel project in Jammu in 1978-79. The expectation has not matured and, according to the latest schedule, the first unit of the project is not expected to be commissioned before 1984-85. Even then, the State will have to remain content with a paltry share in accordance with the agreement reached earlier. The first phase of the Salal project is designed to generate 345 mw (three units of 115 mw each) out of which the State's share has been determined at 80 mw.

The issue of the State getting a larger share from the Central sector hydel projects taken up in Jammu and Kashmir has now affected the pace of work at the 390-mw Dul Hasti hydel project in the Kishtwar area of Jammu province and the 480-mw Uri hydel project in the Kishtwar area. Work on the Dul Hasti project was suspended by the National Hydro-electric Power Corporation (NHPC) within a year of its having been taken up in 1981 because of the Centre-State row on sharing of the benefits. The Uri project which since stands transferred to the NHPC shall apparently remain only on paper till the power sharing controversy is resolved. Both the projects were important components of the State's perspective power plan.

It may be mentioned that Salal and Dul Hasti are the only attempts made so far at tapping the estimated potential of 10,000-mw of the mighty Chenab river in Jammu province. In the Kashmir valley, the only major effort made so far to tap the hydel potential of river Jhelum is the 105-mw Lower Jhelum project. The Uri project would be the second, if and when taken up. According to late Mr Narbu, who distinguished himself as an engineer before becoming the State's Power Minister in 1975, the hydel potential in the Kashmir valley has been established at about 6,000 mw. Thus, even when the State will have seen the completion of Salal and Dul Hasti projects in Jammu province and of Uri project in the Kashmir valley, the utilisation of potential on the Chenab will be a mere seven per cent.

While, therefore, inordinate delay in the completion of the Salal project and the "bad luck" afflicting the Dul Hasti project from the very beginning have made their own contribution to frustrating the 20-year perspective power development plan formulated by the State Government about a decade ago, the State itself has not been able to take up any new power project for implementation, apparently for want of resources. Its efforts at involving the Punjab Government and later the Libyan authorities in the implementation of the Uri hydel project proved futile. Equally futile was its effort at bringing the Planning Commission round to approving an outlay of Rs 450 crores

Year	Demand		Availability	mw/mu	Deficit	
	Summer	Winter	Summer	Winter	Summer	Winter
1980-81	181/434	212/539	157/402	121/385	24/32	91/154
1981-82	209/502	240/602	178/576	132/421	31/76	108/181
1982-83	240/579	275/698	179/580	133/428	61/1	142/276
1983-84	282/667	320/803	179/579	133/423	103/88	187/380
			186/606	139/440	141/164	231/480

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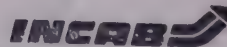
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for the State's power sector in the Sixth Plan.

New generation schemes

The State Government had proposed an outlay of Rs 291.90 crores for new generation schemes, besides Rs 122.13 crores for transmission and distribution, Rs 20.90 crores for rural electrification and Rs 15.07 crores for survey and investigation. The amounts actually approved are Rs 69.49 crores, Rs 71.75 crores, Rs 20.26 crores and Rs 8 crores respectively, adding up to Rs 169.50 crores. Against Rs 35 crores proposed by the State Government for the current year, the Planning Commission approved only Rs 24.36 crores with no allocation for new generation schemes.

Thus, according to State Electricity Board authorities, it has not been possible to take up the implementation of the Upper Sindh hydel project stage-II and Sewa hydel project in respect of which preconstruction works were taken up before the commencement of the Sixth Plan. The former envisages the installation of two units of 35 mw each in the first phase and eventual addition of a third unit of similar capacity for ultimate generation of 105 mw. The project cost on the civil and electric sides have been estimated at Rs 77 crores. The latter envisages installation of three units of 35-mw capacity each with an estimated expenditure of Rs 88.38 crores.

A number of other schemes are being investigated in the State. Of these, the most important is the Kirthai hydel scheme in the Chenab basin with an estimated installed capacity of 1,150 mw. This will be the only scheme in the State "where storage on the river Chenab shall be made to the extent permissible under the Indus Water Treaty." Other projects proposed to be taken up include Parnai hydel scheme (50 mw) and the Bichlari hydel scheme (60 mw). The State Government has also identified a number of micro-hydel schemes. The State Power Minister, Mr G. M. Shah, visited China early this year to get a broad idea of the formulation and implementation of micro-hydel schemes.

Transmission losses

However, if the Planning Commission allocated the highest amount for the current year and for the Sixth Plan as a whole for improving the transmission and the distribution system, the reasons are obvious. Jammu and Kashmir suffers the highest losses in the country on this account. Rough estimates put these losses at a staggering amount of Rs 28 crores per annum. In his report on the state finances for 1978-79, the Comptroller and Auditor General (CAG) noted that the transmission and distribution losses dur-

Table 1 : Power generation in Jammu and Kashmir

	1975-76	1976-77	1977-78	1978-78
	(in lakh kw hours)			
i) Installed capacity of power houses :				
Kashmir	4,647.33	4,660.32	7,673.76	10,651.16
Jammu	4,494.40	4,494.00	4,494.00	4,494.00
ii) Available energy :				
a) Total net generation :				
Kashmir	2,179.79	2,410.96	2,690.20	4,481.75
Jammu	865.00	650.61	642.40	732.00
b) Purchase from outside the State :				
Kashmir	—	—	—	—
Jammu	707.00	1,848.19	2,963.47	1,483.01
c) Transfer of energy :				
Jammu to Kashmir	0.80	359.16	743.76	169.21
Kashmir to Jammu	0.80	130.31	188.47	520.30
d) Net available energy :				
Kashmir	21,179.79	2,639.81	3,245.49	4,130.66
Jammu	1,572.00	2,269.95	3,050.58	2,566.10
iii) Power generated as percentage of installed capacity :				
Kashmir	47.90	51.41	35.39	42.25
Jammu	19.25	14.48	14.39	16.29
iv) Power sold :				
Kashmir	1,056.00	1,392.00	1,718.15	2,299.00
Jammu	1,038.51	1,541.20	2,232.42	1,597.00
v) Loss in transmission and distribution (ii-iv)				
Kashmir	1,123.79	1,247.81	1,527.34	1,831.66
Jammu	533.39	728.75	818.16	969.10
vi) Loss as percentage of power generated :				
Kashmir	51.59	51.75	56.77	40.87
Jammu	61.67	32.1	26.8	37.7

40.87 to 56.77 per cent in the Kashmir region and 26.8 to 61.67 per cent in the Jammu region as compared with the all India average of 19.26 per cent for 1977-78.

The CAG also noted that the power generated as a percentage of installed capacity was only 35.39 to 51.41 per cent in the Kashmir region and 14.48 to 19.25 per cent in the Jammu region. The power situation in the State was found as shown in Table 1.

The CAG did not find enough substance in the argument that less generation as compared with installed capacity was attributable to less discharge of rivers in winter. A test check of the available discharge data revealed that available discharge was not being utilised fully. This becomes clear from the Table 2. The test check was conducted in respect of Ganderbal, Moharra and Upper Sindh hydel projects. The table reveals that only 69 to 75 per cent of the discharge at the headworks as available at the forebay. It also reveals that actual generation was less than what is warranted by the available discharge at the forebay.

Transmission and distribution losses coupled with the operational inefficiency of the hydel stations have made the task of the State Electricity Board quite difficult. It cannot conceive of resources sufficient even to meet its revenue expenditure, not to speak of a surplus to take up new generation schemes. The revised estimates of revenue receipts of the board for 1981-82 were Rs 18.33 crores. The expenditure, on the other hand, was over Rs 22.46 crores, showing a loss of about Rs six crores. For the current year, revenue estimates have been placed at Rs 22.99 crores against an expenditure of Rs 28.03 crores, indicating a loss of Rs five crores.

The situation is disquieting. The Central sector projects have been and continue to be in a disarray. The State has no resources to take up power projects on its own. The commitments are mounting with persistent invitations and allurements to captains of industry in the country to invest in the State even in high power-intensive projects. This, in a State which pioneered hydel generation in the country.

Table 2 : Discharge data

Year	Total water discharge at headworks	Total discharge at forebay	Percentage of 3 to 2	Power generation possible with 3	Actual generation	Short-fall
(1)	(2)	(3)	(4)	(5)	(6)	(7)
	(In million units)			(In kilowatt hours)		
1975-76	1,151	790	69	235.10	215.91	19.19
1976-77	1,146	865	75	257.93	242.34	15.59
1977-78	1,290	915	71	272.60	253.58	19.02
1978-79	1,252	893	71	267.02	243.42	23.60

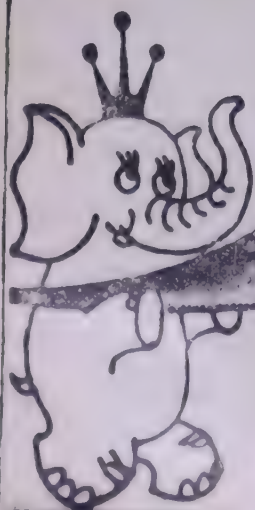
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KARNATAKA

Shift in growth strategy

From OUR CORRESPONDENT

BANGALORE

IN keeping with the changing system requirements, power planners and engineers in Karnataka have begun to shift their growth strategy to a prudent mix of hydel thermal to a nuclear power generation.

The traditional exclusive reliance on hydel generation has exposed the State's system to very heavy stresses, strains and uncertainties. The State, which was the leader in power generation until the beginning of the 1970s and was the kingpin of the southern regional power grid, has now become, partly, dependent on imported power, chiefly from Kerala. Power surpluses, which characterised the scene until a decade ago, have turned to acute deficits.

The State's ongoing maiden thermal plant in Raichur, on the banks of the Krishna, marks a major departure in the State's strategy on the power development front. It is the beginning of the process of achieving the generation mix, dictated by the system's requirements.

Ever since the erstwhile progressive princely state of Mysore launched on the Shivasamudram tiny hydel power station, designed to cater to the needs of the Kolar Gold Fields, at the beginning of the century, the accent has been wholly on tapping the 6,000 mw hydel potential.

A string of hydel projects have come up, since then. The first big one was the Mahatma Gandhi hydro electric project, in Jog, with a capacity of 1,20,000 kw, across the Sharavathi river. It triggered a burst of industrial activity for which the then princely state was acclaimed as a leader, in setting the pace for the state sector to play the role of a promoter of a wide variety of industries—from the basic and heavy to consumer industries.

In keeping with its reputation, Mysore after the advent of independence, built India's biggest hydel

generating capacity of nearly 1,000 mw. The project began to yield, in stages, in the latter half of 1960s, meeting the power hunger on the one hand and unleashing fresh industrial activity on the other.

Its successor, the bigger hydel giant, is the Kali project in the North Kanara district. Its total potential is about 1,300 mw, in three stages. The first stage, envisaging the generation of 910 mw, is due to be commissioned by the middle of 1984. The first stage provides for six generators of 135 mw capacity, each, and two 50 mw Supa dam power house units.

The Supa reservoir, the mother storage for the line-up of six generators at the Nagjhari power house, at the other end of the Kali complex, is due to be commissioned for firm, all the year round power generation in June 1984. But, in the meantime, four generators have already been commissioned on the seasonal run of the river basis, making use of the copious monsoon inflows into the Kali river, during the South-West monsoon months of June-September. The partial operation of the Kali generators have been usefully bolstering the needs of the grid.

Slippages

Both the giant projects have, of course, had their share of slippages in schedules. The Sharavathi project is still the mainstay of the system. The advent of the two projects marks a phenomenal development. The power sector has been accorded the highest priority in the Five Year Plans, enjoying more than a quarter share of the total developmental outlays. The installed generating capacity which was hardly 186 mw in 1960-61, a little after the states' reorganisation, has zoomed to nearly 1,500 mw. The energy generated has registered a five-fold increase.

Yet, the load growth has increased enormously outstripping the installed capacity. The pinch began to be felt in 1972. It presaged an era of

year after year. The energy deficit reached such a level that in 1979-80, the power cut on high tension users was as much as 80 per cent, even after power imports were made from the neighbouring states. It was due to low rainfall, affecting the Linganamakki reservoir of the Sharavathi project.

The present energy availability is estimated at 6,930 million units as against an estimated demand of 11,110 million units. No wonder, the deficit has produced a crippling effect on all the other sectors of the economy. There has been idle industrial capacity and a fall off in the impact of employment generation. Incentives and concessions have failed to attract fresh investment in industry. Paucity of power has been driving entrepreneurs away from the State.

Substantial deficits

According to the Plan estimates of demand and availability of power and energy in the 1980-90 period, even after the present level of power development over the next 10 years, the State would continue to be dogged by substantial deficits. Even though the anticipated generating capacity in 1990 would be a little more than double the present capacity and the energy availability would register a 139 per cent increase, the deficit then is estimated to be 1,029 mw generating capacity and about 6,500 million units of energy, almost one third of the demand.

The power planning strategy has, therefore, been undergoing readjustments. The new strategy will accord the highest priority to the completion of ongoing projects and, simultaneously, take the necessary advance action on new schemes.

The exclusive reliance on hydel power has demonstrably exposed the system to risks, owing to the chequered behaviour of the south-west monsoons. The need for imparting a greater degree of stability to the

system has been realised. An attempt is being made to go in for a workable generation mix, bringing in thermal, nuclear, and gas-based power. An attempt is also being made to work the system in an integrated manner for optimum operation and benefits.

It is in this context that the State's maiden thermal plant project in Raichur has been started. The project envisages two-stages of development, to yield an ultimate capacity of 1,050 mw (5 x 210). The first phase of 2 x 210 mw units is expected to become operational by the beginning of 1984. The plant, can initially depend for its coal supplies on the nearby Singareni collieries in Andhra Pradesh.

Power planners are considering the setting up of one or more (coastal-based) thermal plants, with imported coal, if necessary. The State has no coal resources of its own and hence, the traditional reliance on hydel generation. Attempts are being made to prevail on the Centre to allot to the State a nuclear power plant, in the near future.

Though Karnataka is entitled to and expects a share from the central power projects, outside the southern region, no firm commitments have been obtained, as yet, except in the case of the Ramagundam thermal plant in Andhra Pradesh. Though State has been toying with the idea of putting up a four unit gas turbine project in Bangalore, for several years now, to help tackle peak load problems, it has not got off the ground.

A feature of the power development front in the State is that for some 20 years now, a separate agency has been in charge of building hydro electric projects, while the state electricity board is the distributing agency. In 1970, the Mysore (now Karnataka) Power Corporation Ltd. was established as the government's agency for building power projects. The corporation is building the Kali hydel project and the Raichur thermal plant, its two major preoccupations.

Need-based programme

The Power Corporation has prepared a need-based power generation

requiring an investment of Rs 770 crores (an equivalent investment has already gone into power projects, so far), under the Sixth Plan. The provision is intended to both to attain a degree of self-sufficiency and to help advance action on the project to be taken up in the Seventh and the subsequent Plans. The Sixth Plan component of it is Rs 372 crores.

The approved Sixth Plan ongoing schemes are the completion of the balance works of the Kali Stage I; Kali Stage II (278 mw), the Raichur thermal plant stage I; the Varahi hydel (239 mw); and Bedthi hydel stage I (210 mw). But, there are uncertainties forced by financial limitations and it is possible that the scope of some of the less big ones might undergo modifications. There is also a string of smaller hydel and dam power house projects, waiting for their turn.

Lately, however, resistance is showing up from ecology advocates, particularly in the North Kanara district, to the construction of hydel projects in the district, which is one of the two hydel power bowls of the State. Their targets are the Bedthi and even the Kali stage II. The agitationists fear that the forest-rich district would soon turn into a vast lake with the construction of a chain of hydel reservoirs, eventually blotting the district out of existence. The Government has appointed an expert committee to go into the issue.

The other big hydel project the State has set its eyes upon is the Mekedatu project (the name derives from the narrow gorge that a goat is capable of leaping across), across the Cauvery, in south Karnataka. It envisages the generation of an estimated 800 mw of power. The project has been bogged down by the continuing dispute between Karnataka and Tamil Nadu over the sharing of the waters of the Cauvery.

Alternative project

Tamil Nadu has an alternative project, called the Hogenkal, downstream of the Cauvery, in its territory, which it has proposed as a joint project. But, the project proposal has met with objections from Karnataka, stemming from its fears that the

fall within Karnataka's boundaries. The prospects of both the river schemes are hazy, at the moment.

The Raichur thermal plant presents the first attempt Karnataka's electrical engineers at non-hydel construction. Its other significant feature is that it is one of the few projects in the country to be cleared for execution in the state sector, against the trend towards centralisation and super thermal stations. The state's privilege has also brought in its train certain problems. While the first 2 x 210 mw units are linked to the Singareni collieries, the coal linkage for the other units has become problematical.

The Power Corporation has been abruptly told that any future coal linkage could only be with the far away Bengal-Bihar coal belt. This has led to apprehensions about the project's viability, because of the steep addition to costs stemming from coal haulage from long distances. There is a feeling that the State has been discriminated against on the linkage plane. The Government is trying to sort it out.

The Power Corporation is also trying to take up the third 210 mw Raichur units, as part of the first phase itself. Its case is that the infrastructure and common facilities already built up for the first two units would be quite sufficient to support the third unit also, with little addition to the cost. The third unit is conceived of as an aid in meeting the load demands, till such time as the major hydel schemes under consideration begin to yield. A case is being made out to the Government of India.

Since June-end, all the power cuts on high tension users have been practically removed, following the onset of the southwest monsoon, which fills the Lingarajmakki reservoir of the Sharavathi project. These power cuts have become an annual feature, depending on the storage level at the reservoir and the size of the southwest monsoon flows into the Kali river, for the run of the river operation of the generators at the Nagjhari power house.

KERALA

Rural electrification complete

From OUR CORRESPONDENT

TRIVANDRUM

KERALA is a power surplus state. But the rising demand for power and the tendency of the monsoons to fail causing the water level to fall down in the hydel reservoirs, have of late exposed Kerala to the threat of power shortages. Now projects should be implemented at the earliest.

The power system in the State is entirely hydro-based, though the State would eagerly look forward to installing a nuclear power project. It is estimated that Kerala has a power potential of 3 million kilowatts, at 60 per cent load factor. Till now, the State has harnessed only one-third, namely 1011.5 mw of this potential through eleven completed projects. The State has also eight projects at various stages of implementation, which when complete, would add 600 mw to the power generation capability (excluding Idukki Stage-2 which will add to peaking power), and 2,350 mkwh to the energy generation capability.

Till March 1981, total investment in the power sector was to the tune of Rs 528 crores. This accounts for more than 25 per cent of the total plan expenditure incurred by the State. As a result of the sizeable investment in the power sector, the installed power generation capability recorded an impressive rise from 132.5 mw in 1960-61 to 1,011.5 mw in 1980-81. During this period, power generation increased from 591 mkwh to 5,242 mkwh.

The per capita consumption of power is lower than the all India average, though Kerala is a power surplus state. Consumption rose from 30 kwh in 1960-61 to 95 kwh in 1980-81.

Earlier plan periods gave more emphasis to the generation of power. Till 1977-78, about 61 per cent of the total investment on power development was made on power generation. However, from 1978-80, top priority was given to strengthening the transmission and distribution network in the State so as to provide a steady

age stability, and to clear the arrears of backlog in power connections.

In the State, power supply has reached almost every village. The people in the rural areas have begun to look forward to electricity for their needs in greater measure.

Projects

The present installed capacity of the Kerala power system is 1,011.5 mw as aforesaid. The generating capacity is 4,730 million units, and the actual generation during 1980-81 and 1981-82 of the Sixth Plan is 5,241.6 million units and 5,530.3 million units respectively. At present there are nine power stations actually working in the State, and work on the following hydel stations are in full swing.

1. Idamalayar	321 mw
2. Idukki Stage 3	376 mw
3. Sabarigiri Augmentation	125 mw
4. Kakkad	262 mw
5. Idukki Stage 2 peaking	390 mw
6. Kallada	53 mw

The Idamalayar scheme is a multi-purpose scheme for irrigation, power and domestic water supply, a low-head hydel scheme in Idukki district. The project consists of the construction of a reservoir of 1,090 cubic metres capacity, a 91 m high straight gravity concrete dam across Idamalayar river and diversion of this water through a water conductor system to the 75 mw generating station located on the left bank of the river, to produce 320 million units of energy per annum. This project will be the first hydel scheme in the State to generate power with complete equipment manufactured in our country. According to the present programme commissioning of the first and second units of the project is possible by April 1983 and September 1983 respectively. The expenditure on this project upto March 1981 was Rs 30.85 crores. During the current financial year, the cash flow upto December 1981 is Rs 12.52 crores.

Augmentation schemes

Idukki Stage III is an augmentation

of river waters to the Idukki reservoir, for augmenting the power generation at Idukki project power station by 376 million units per annum. Work on this commenced in 1975-76. Due to labour problems which are a curse in Kerala, only 27 per cent of the dam has been raised so far. All the works relating to the scheme are to be completed by 1982-83. The latest revised cost of the project is Rs 10.55 crores, and the cumulative expenditure till March 1981 is Rs 8.14 crores. During the current year, the cash flow upto December 1981 is Rs 1.02 crores.

The Sabarigiri augmentation scheme, which envisages the diversion of waters of three rivers into the existing Kakki reservoir, will enable additional power generation in the existing Sabarigiri project station to the tune of 125 million units per annum. All works relating to the diversion of the Upper Moozhayar waters to the Kakki reservoir were completed and diversion effected from May 1979 onwards. Work on the diversion of waters of the Pamba reservoir was badly affected by labour problems. As per the present programme, works relating to the scheme are expected to be completed by 1983-84. The latest estimated cost of the scheme is Rs 4.50 crores, out of which Rs 3.75 crores has been spent upto 1981.

The Kakkad hydel scheme is primarily a tail-race development of the existing Sabarigiri project. This will add to the State grid 262 million units of energy per annum. Work on this scheme commenced in 1978-79. A major portion of the construction of infrastructure works is over. As existing contracts failed, fresh contracts are yet to be arranged for construction of tunnels. The latest estimate made of the cost of the scheme is Rs 29.20 crores and the expenditure upto March 1981 was Rs 3.52 crores.

Idukki stage-3 project costing Rs 31.68 crores envisages installation of an additional three units of 130 mw each in the existing Idukki power station to meet the peaking needs of the power system of the State. All the generating units and

to be imported from Canada. The project is aided by the Government of Canada, under an agreement signed between the Governments of India and Canada. Expenditure up to December 1981 for the project was Rs 0.15 crores.

The Kallada scheme costing Rs 12 crores envisages installation of two units of 7.5 mw each to generate 65 million units of energy per annum. This is a low head scheme, with the power station located just down stream of the Kallada irrigation dam, which is scheduled to be completed in the Sixth Plan period. The power project has been recently approved by the Planning Commission and work on it will begin shortly.

The above schemes when completed will add 1,137 million units of energy to the system. All the schemes except Kakkad will be commissioned within the Plan period. In addition to the above, advance action on the following schemes is also on hand.

1. Lower Periyar
2. Kuttiyadi Augmentation
3. Pooyankutti
4. Kariarkutty-Karappara
5. Mananthavady

Million Units
540
220
1,721
210
720

The possibility of getting financial aid from foreign countries particularly Canada, for the Lower Periyar and Pooyankutti schemes is being explored by the Kerala Government and the Electricity Board.

Silent Valley scheme

Now, the State Government is pinning its hopes on the Centre giving the green signal to the controversial Silent Valley scheme. This scheme if taken up and completed would add 522 million units of energy to the Kerala power grid per annum. Work on this project could not be continued because of objections from the world of scientists and ecologists, on the ground that the project would lead to the destruction of one of the world's oldest tropical evergreen rain forests, with rare varieties of fauna and flora. The present government

headed by Mr K. Karunakaran has made strong representations to the Prime Minister seeking the go ahead signal.

To reduce transmission and distribution losses, the following works have been taken up.

1. Construction of more substations and transmission lines
2. Installation of capacitor banks. In 12 substations these have been installed, and in 14 work is in progress.
3. Strengthening of 11 kv & 1t lines
4. Installation of additional transformers
5. Adding new 11 kv feeders from the substation
6. Installation of 1t capacitors in industrial consumer premises.

Even though the State's villages had been provided with electricity and distribution lines by the end of 1980, electricity has still to reach several parts of the villages. Kerala is one of the very few states to have reached the target of near-cent-per cent rural electrification.

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J. KHANNA
Managing Director,
Punjab Financial Corporation
72 73 Bank Square, Sec 17-B,
Chandigarh.

MADHYA PRADESH

Shortage in Sixth Plan

From OUR CORRESPONDENT

BHOPAL

MADHYA Pradesh experienced in February this year what was described as the worst ever power crisis following the breakdown, one after another, of almost all the thermal and hydel generating sets, plunging the entire State into total darkness.

This was ten days after January 31, when the breakdown of the State's five generating sets at the Korba, Amarkantak and the Satpura power houses had lowered the power generation to a mere 450 mw, 28 per cent of the State's installed capacity of 1,600 mw.

The public sector aluminium project at Korba suffered heavy damage to its machinery and equipment following largescale power tripping, and the production at this plant as well as at the public sector newsprint mill in Nepanagar went down considerably, as a result of insufficient and irregular electricity supply.

This was also the position at the Bhilai steel plant, the Bailadila iron ore mines and the defence installations at Jabalpur, not to speak of the State's premier textile industry and scores of small factories.

A generating unit inaugurated during the Janata regime by Mr Morarji Desai at the Satpura power house has yet to start normal working while the inauguration of another unit at the same power house by Mrs Gandhi early this year was put off, following its breakdown on the eve of the ceremony.

Most of the equipment at the power houses in MP was supplied by the Bharat Heavy Electricals, a public sector organisation, which maintains that faulty installation and unsatisfactory maintenance are responsible for the frequent breakdown in MP's power houses.

The State Electricity Board, on the other hand, asserts that it had suffered a loss of Rs 20 crores in 1980-81 alone, as a result of the poor working of BHEL's power generating equipment. The chairman of the MPEB went to the extent of suggesting the need for an organisation parallel to the BHEL to meet the

Whatever the truth of the mutual accusations made by the two state-run organisations, it is a fact that the grossly inefficient working of the MP Electricity Board has resulted in heavy losses to the industrial and commercial concerns in the State, besides putting the domestic consumers to avoidable hardships.

Steep increase in tariff

As if the drastic cut in power supply was not enough, the State Electricity Board announced a steep increase in its tariff with effect from February 1, 1982. Urban domestic consumers now pay 40 paise per unit while the rural consumers are charged 38 paise. The facility of cheaper rates for domestic power consumption for refrigerators, water boilers, air-conditioners and coolers, etc has now been withdrawn and 40 paise charged for domestic consumption.

The new rates for commercial concerns is 65 and 75 paise per unit, the former for the first 50 units. A single rate has been prescribed for industrial consumers with loads up to 100 BHP.

The Madhya Pradesh Government has failed to force the state governments of Uttar Pradesh and Orissa to supply the share of power to this State stipulated in the interstate agreements. MP, on the other hand, is not making available its share of power to Rajasthan which it is required to do under the agreement.

Nobody knows whether this State will get any electricity from Andhra Pradesh, for which purpose a 202 km power line has recently been commissioned. MP was promised supply of 100 mw of power from Andhra Pradesh, at the time of the commissioning this year, of this project.

Rural electrification

Madhya Pradesh has electrified more than 28,500 villages which is 40 per cent of the total villages in this State. One hundred per cent electrification of all villages is assured by 1990.

The State Electricity Board has often complained of comparatively

ing supplied by the various coalfields. It is also the case that though MP, is one of the largest coal producers in the country, power houses in other states are able to get comparatively better types of coal from the mines in MP.

The percentage of transmission and distribution losses in MP is already on the higher side. It went up further from 22.3 per cent in 1979-80 to 22.4 per cent in 1980-81. As against this, these losses in West Bengal in 1980-81 were 13.49 per cent, 14.57 per cent in Kerala, 16.19 per cent in UP, 16.69 per cent in Maharashtra, 18.92 per cent in Tamil Nadu, 19.47 per cent in Punjab, 19.68 per cent in Gujarat, 19.81 per cent in Orissa, 20.28 per cent in Assam, 21.38 per cent in Bihar and 20.28 per cent in Karnataka.

The State Electricity Board, however, appears to take solace from the fact the transmission losses in the year under review were higher in Andhra Pradesh (22.69), Haryana (23.66) and Rajasthan (25.97).

Industrial consumers

Following the steep upward revision of power tariff in MP the rates for industrial consumers are now among the highest. The heavy industry with 60 per cent load factor (6,000 kw) and consuming 2,190,000 kwh per month is at present charged 51.28 paise per unit (excluding electricity duty) in this State, which is higher than in all states except Assam (55 paise) and West Bengal (49.59 paise).

The power tariff in MP for large industrial consumers consuming 365,000 kwh (50 per cent LF of 1,000 kw) is 52.69 paise per unit which is also highest in the country, except in West Bengal (55.50 paise) and Assam (55 paise). Similarly, the 54.82 paise per unit rate for the large industries consuming 73,000 kwh per month (40 per cent LF of 250 kw) is also highest in India except in West Bengal (59.13 paise) and Assam (55 paise).

It may be added that while the rates for power supply were revised in MP from February 1982, the rates

have not been revised in the other states since 1981. In fact, the last revision in Kashmir took place in April 1979 and a month later in Tamil Nadu.

Financial performance

Whatever its service to the consumers and irrespective of its high tariff, the MP Electricity Board takes pride in the fact its financial performance has been "fairly good" over the past several years. The rate of return to the MPEB was 12.2 per cent in 1975, 13.3 in 1976, 14.5 in the following year, 13.4 in 1978 and 15.2 per cent in 1979.

In 1979, Karnataka recorded the highest rate of return — it being 19.8 per cent, followed by 18.7 in Kerala and 17 in Maharashtra. The rate of return in this year was 14.4 per cent in Gujarat, 12.9 in Punjab, 12.9 in Haryana, 11.5 in West Bengal, 11.3 in Tamil Nadu and 11.1 in Rajasthan.

The MPEB claims that the return

was only 0.6 per cent in Bihar, 2.3 in MP, 8 per cent in Andhra Pradesh, 8 per cent in Orissa, and 9.6 per cent in Himachal Pradesh.

Peak availability

The national average of rate of return in the various state power boards was 7.4 per cent in 1975, 9.5 in 1976, 10.9 in 1977, 9.9 in 1978 and 10.5 in 1979.

Despite widespread tripping, the MPEB claims that its peak availability in 1981-82 was 1,021 mw which is 62.5 per cent of its installed capacity. The performance was thus better than in Bihar where the peak availability was only 33.7 per cent, West Bengal (51.2), Assam (51.7), Gujarat (56.4) and UP (62.3).

However, it is on record that the performance of MP was poorer than Maharashtra (62.9), Andhra Pradesh (64.3), Rajasthan (65.3), Haryana (70.6), Orissa (71.9), Pun-

jab (74.9), Karnataka (77.4), Kerala (80.7) and Himachal Pradesh (116.8). The peak availability in Tamil Nadu was at par with MP it being 62.5 per cent.

The MPEB has electrified more than 30,000 villages which is 42 per cent of the total habitated villages in the State. Transmission lines have also been laid to energise almost 450,000 irrigation pumps. It hopes to achieve 100 per cent electrification of villages by 1990.

New projects

New projects aimed at increasing the power potential of MP have been taken on. Among the projects now under execution are the addition of two units of 210 mw each at the Satpura power house in Betul district, addition of four units of 210 mw each and two units of 120 mw each at Korba in Bilaspur district and two units of 120 mw each at Amarkantak in Shahdol district.

In addition, work has started on the Bodhghat hydel power project which envisages the construction of four units of 125 mw each. MP will also get 107 mw power from the Pench hydel power project which will produce 160 mw, Maharashtra being the other partner.

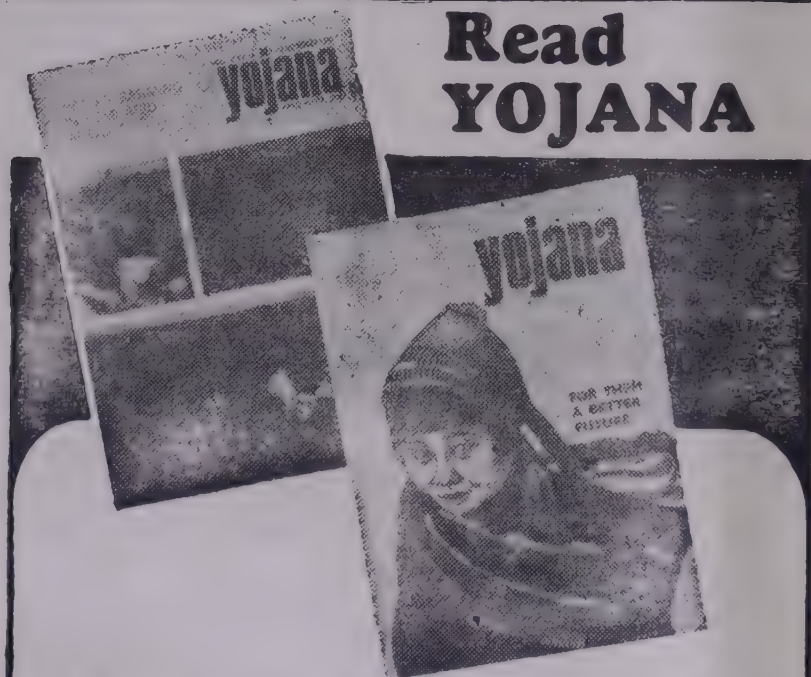
Yet another power house will come up at Birsinghpur in Shahdol district where ultimately 1,260 mw will be generated. However, the present plans on which work is now going on relate to the setting up of two units of 210 mw each. Efforts are also on to get the Central sanction for installation of two units of 210 mw each at Bishrampur in Surguja district on the south-eastern tip of MP.

The Centre has decided to entrust the National Thermal Power Corporation with the building of the Vindhyachal project in Sidhi district, where two units of 500 mw each will be set up. Similarly, the NTPC will build the 410 mw Pench power house in Chhindwara district.

Like the Pench project which is being built in partnership with Maharashtra, MP has signed agreements with Gujarat for setting up 2,000 mw Bandhav super thermal plant in Sidhi district and a 1,200 mw thermal project in Raigarh district.

The 10th report of the Power Survey Committee has estimated the requirement of MP at the end of the Sixth Plan at 4,500 mw. As against that the Sixth Plan provides for the creation of installed capacity of

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MAHARASHTRA

Deficit despite phenomenal growth

From OUR CORRESPONDENT

BOMBAY

MAHARASHTRA, the leading industrialised state in the country, has taken commendable strides in the field of power development. During the last two decades the installed derated generation capacity in Maharashtra increased more than five-fold from 760 mw in 1960-61 to 3,986 mw at the end of 1980-81. The power generation also increased from 3,268 million kwh in 1960-61 to 18,689 million kwh in 1980-81. In 1960-61, only 774 towns and villages were electrified; the number has since gone up to 27,914 by the end of 1980-81. The progress in certain key indicators of power development since the formation of the separate State of Maharashtra is given in Table 1.

During the last two decades, i.e. between 1960-61 and 1981-82, the investment in the power sector amounted to Rs 2,363 crores or 31 per cent of the total Plan outlay/expenditure of Maharashtra (Table 2).

For the entire Sixth Plan period (1980-85) an outlay of Rs 2,157 crores or 34.9 per cent of the total outlay of Rs 6,175 crores has been provided for power development.

Maharashtra accounted for about 14 per cent of all-India installed capacity of power as on March 31, 1981 and 17 per cent each of the all-India power generation and consumption. The major source of power in Maharashtra is thermal which accounts for more than three-fifths of the total installed capacity of power in the State.

By the end of September 1981, 28,343 or nearly four-fifths (79 per cent) of the villages in the State and about 90 per cent of the rural population had an access to electric supply. The number of agricultural pumpsets energised by this period rose to 6.96 lakhs.

In respect of per capita power consumption—aggregate, domestic and industrial—Maharashtra led all other states till 1978-79. However, in subsequent years it conceded this position to other states. In 1980-81, the per capita power consumption for industrial purposes in Maharashtra at 130 kwh was the third highest after Gujarat (143 kwh) and Punjab (141 kwh). In respect of per capita power consumption for domestic purposes in the same year Maharashtra, however, ranked second with 28 kwh after Punjab (30 kwh).

and power generation by all the power plants in Maharashtra is shown in Table 3.

Despite the huge investment in the power sector and the creation of new generating capacities, Maharashtra has not been able to cope with the ever-growing demand for power. As a result, over the last several years, the State is experiencing a deficit on the power front leading to imposition of power cuts on the consumption of different categories of users. The power requirement, availability and deficit for the last four years is shown in Table 4.

In the past three years, industrial consumers in Maharashtra have been facing on an average a power cut of about 30-40 per cent. Severe power crises have developed more than once during these years. If in June 1979 it

was a total shutdown of industries for five days because of alarmingly low water levels in the hydel reservoirs and precarious coal stocks with the thermal stations leading to a colossal loss in the form of man-days, wages and industrial production, in November 1981 the situation was equally bad because of the wild-cat strike by the engineers of the Maharashtra State Electricity Board (MSEB). The latest instance of a complete breakdown of the power system in Maharashtra was on June 14, 1982 when the 'cascade tripping' of all the power stations took place simultaneously. The impact of the tripping was such that from the line availability of 2,680 mw the generation dropped to just 450 mw. Even from this meagre availability as much as 350 mw was contributed by the Tatas who were successful in delinking their Trombay unit from the state grid. To meet the

Table 1: Key indicators of power development in Maharashtra

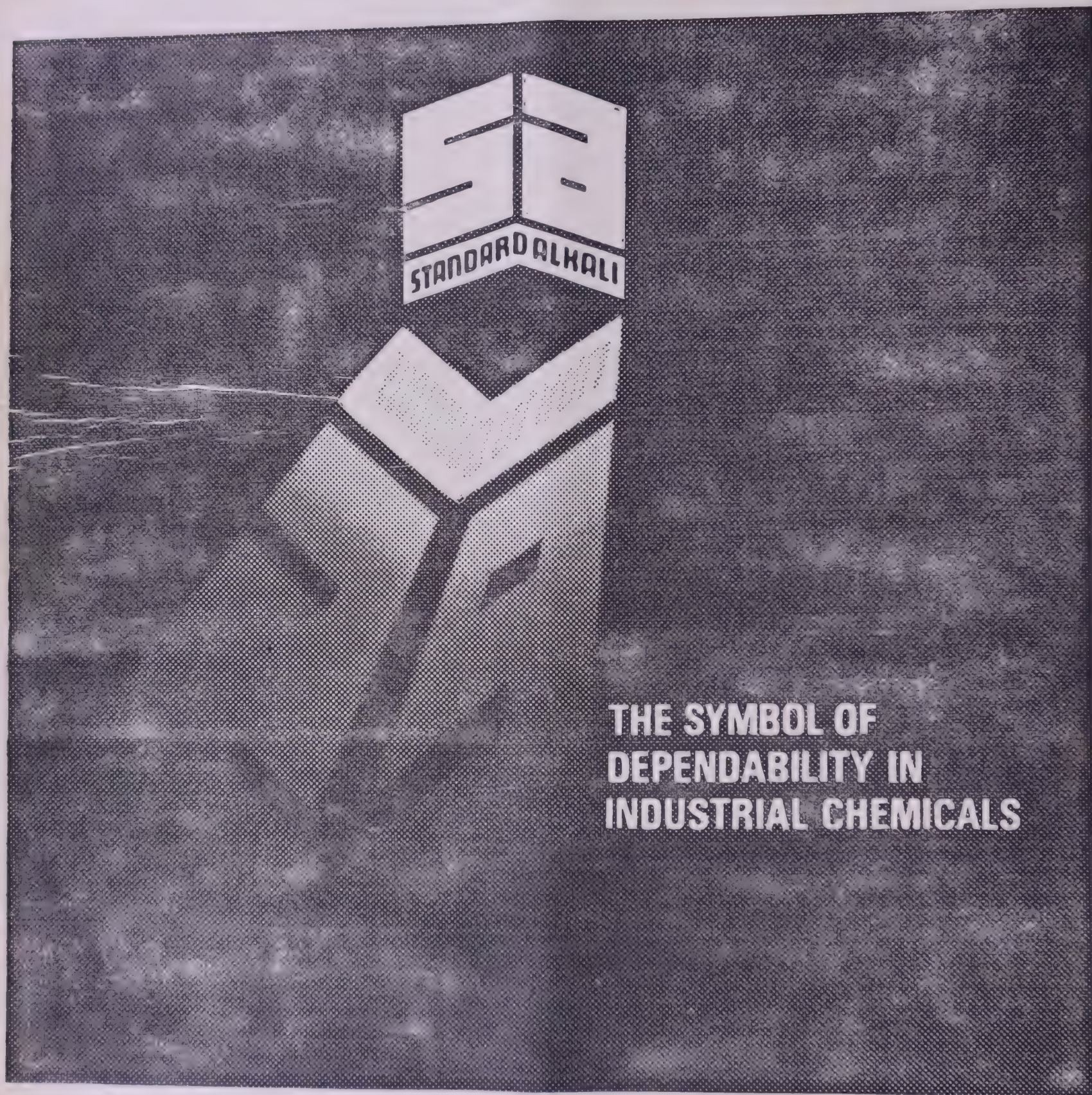
Indicator	1960-61	1980-81
1. Installed derated capacity (mw)	760	3,986
2. Power generation (Million kwh)	3,268	18,689
3. Energy sales (Million kwh)	2,720	14,464
4. Industrial consumption (Million kwh)	1,853	8,151
5. Agricultural consumption (Million kwh)	15	1,723
6. Towns & villages electrified (Number)	774	27,914
7. Consumers served (Number)	1,07,833	31,64,526 *
8. Per capita consumption (kwh)	73	216 *
9. Agricultural pumpsets energised (Number) (at the end of the year)	6,695	6,68,058

* Data relate to 1979-80

Table 2: Plan-wise investment on power in Maharashtra

Plan period	Total (Rs crores)	Plan outlay/expenditure	
		Of which on power sector	
		Rs crores	As per cent of total outlay/expenditure
Third Plan (1961-66)	434.73	93.91	21.0
Three Annual Plans (1966-69)	385.60	115.45	29.9
Fourth Plan (1969-74)	1,084.51	283.65	28.2
Fifth Plan (1974-78)	1,878.15	616.33	32.8
Annual Plans			
1978-79	781.98	294.13	37.6
1979-80	803.82	289.55	36.0
1980-81	883.00	318.61	36.1
1981-82	1,080.00	350.94	32.5
Total	7,331.79	2,362.57	30.6

SOURCE: Government of Maharashtra, Planning Department, Annual Plan 1982-83



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situation, the MSEB had no other go to resort to massive load-shedding for all categories of consumers. The essential services like milk supply and water supply were also affected to a great extent.

The capacity of the power system in Maharashtra is utilised to the maximum possible extent and there is practically no spinning reserve. As such, whenever there is a forced outage of a generating unit, it calls for corresponding load-shedding, particularly during the peak load period. With this background, the Maharashtra State Electricity Board is constructing a gas turbine unit as a peaking station at Uran in Raigad district, where ample gas is available from the Bombay High, at a cost of about Rs 67 crores. This station would have four units of 60 mw each, of which the first 60 mw unit was commissioned in March 1982 and the second 60 mw unit in April 1982. The advantages of a gas turbine station are that it requires low capital investment and takes a very short period (about one year) for installation. Besides, unlike other power generation units, the gas turbine can be raised from standstill to full load in seven to eight minutes and give quick relief to the power system meeting the peak demand. With the basic infrastructure facilities available in the area, it should be possible to add more units of 60 mw each to the existing Uran gas turbine station.

It is the endeavour of the State Government to create more and more capacity to generate power. The hydro-electric projects under construction in the State are: Pench (160 mw), Tillari (60 mw), Paithan (12 mw), Bhira Tail Race (10 mw), Bhandardara (45 mw) and Pavana (10 mw). During 1982-83 the State Government has proposed to take up preliminary work on the following projects: Bhatsa (15 mw), Khadakwasla (16 mw), Koyna stage IV (750 mw).

With the assistance of National Hydro Power Corporation, the State Government has initiated studies for harnessing the power potential of the west-flowing rivers of the Western Ghats in Konkan.

The power programme of Maharashtra for 1982-83 envisages the addition of generating capacity of 960 mw and electrification of 60,000 agricultural pump-sets. It is proposed to achieve 100 per cent electrification of villages by the end of 1984-85.

Under the integrated rural energy programme of the Union Government, Anar taluka in Nasik district has been selected for the pilot project in Maharashtra. The programme would consider the need pattern in a given

options consisting of conventional, non-conventional, renewable and non-renewable sources, technological options, conservation options, training and extension.

The Union Government has agreed in principle to establish a super thermal power station in the Central sector as a project of the National Thermal Power Corporation in the Rajura area of Chandrapur district after the possibility of exploitation of adequate coal in that area is established.

On the basis of the assessment of the physical capacity of the available organisational infrastructure to execute the power programme, and the availability

of funds during the five-year period 1980-85, the Maharashtra Government has anticipated that the total installed generating capacity at the end of 1984-85 would go up to 6,661 mw. Taking into account the share of Maharashtra of 315 mw expected to be available from the Korba super thermal power station (Madhya Pradesh), the total installed capacity at the end of 1984-85 was expected to be 6,976 mw as against the need-based demand of the State by that period of a total generating capacity of 11,000 mw. This would mean that there would still be a gap of 4,000 mw in the installed capacity vis-a-vis requirement.

Table 3: Installed plant-wise capacity and generation in Maharashtra

Plant	Installed capacity (mw) As on March 31, 1982	Gross power generation (million kwh)			
		1978-79	1979-80	1980-81	1981-82
Thermal and nuclear					
Tarapur	420 (420)	2,287	1,746	1,774	1,964
Trombay	337.5 (330)	2,347	2,154	2,015	2,233
Nashik	910 (910)	1,428	1,965	2,828	3,754
Koradi	890 (890)	2,811	3,597	3,516	3,568
Khaperkheda	90 (90)	395	409	411	273
Paras	92.5 (92.5)	489	481	546	433
Bhusawal	272.5 (272.5)	401	382	1,184	1,094
Parli	270 (270)	463	449	620	880
Chola	96 (40)	232	253	200	176
Uran	120* (120)	—	—	—	2
Others	22.5 (18)	117	108	96	81
<hr/>					
Total thermal & nuclear	3,521.0 (3,453)	10,970	11,544	13,190	14,460
<hr/>					
Hydro					
Koyna	880 (880)	5,280	4,360	4,683	4,715
Tata	276 (276)	1,484	1,308	1,470	1,343
Vaitarna	60 (60)	148	137	158	153
Eldari, Vir and Bhatghar	47.5 (47.5)	124	142	134	114
Koyna Dam Power House	40 (40)	—	—	4	28
<hr/>					
Total hydro	1,303.5 (1,303.5)	7,036	5,947	6,449	6,353
<hr/>					
Total Maharashtra	4,824.5 (4,756.5)	18,006	17,491	19,639	20,813

Notes : *Commissioned on March 29, 1982. Figures in brackets indicate derated capacity.

SOURCES : 1. Reply to Unstarred Question No. 4792 in the Lok Sabha on March 23, 1982
2. Government of India, Ministry of Energy, Central Electricity Authority, Bulletin on Power Supply Position in the Country (various issues)

Table 4: Requirement, availability and deficit in power in Maharashtra : 1978-79 to 1981-82

	1978-79	1979-80	1980-81	1981-82
1. Requirement (Million kwh)	17,705	19,322	20,281	24,000
2. Availability (Million kwh)	15,687	15,635	17,160	18,388
3. Deficit				
(i) Million kwh	2,018	3,687	3,131	5,612
(ii) As per cent of requirement	11.4	19.1	15.4	23.3

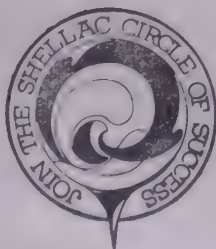
SOURCES : 1. Reply to Starred Question No. 4 in the Rajya Sabha on April 26, 1982
2. Government of India, Ministry of Energy, Central Electricity Authority, Bulletin on Power Supply Position in the Country (various issues)

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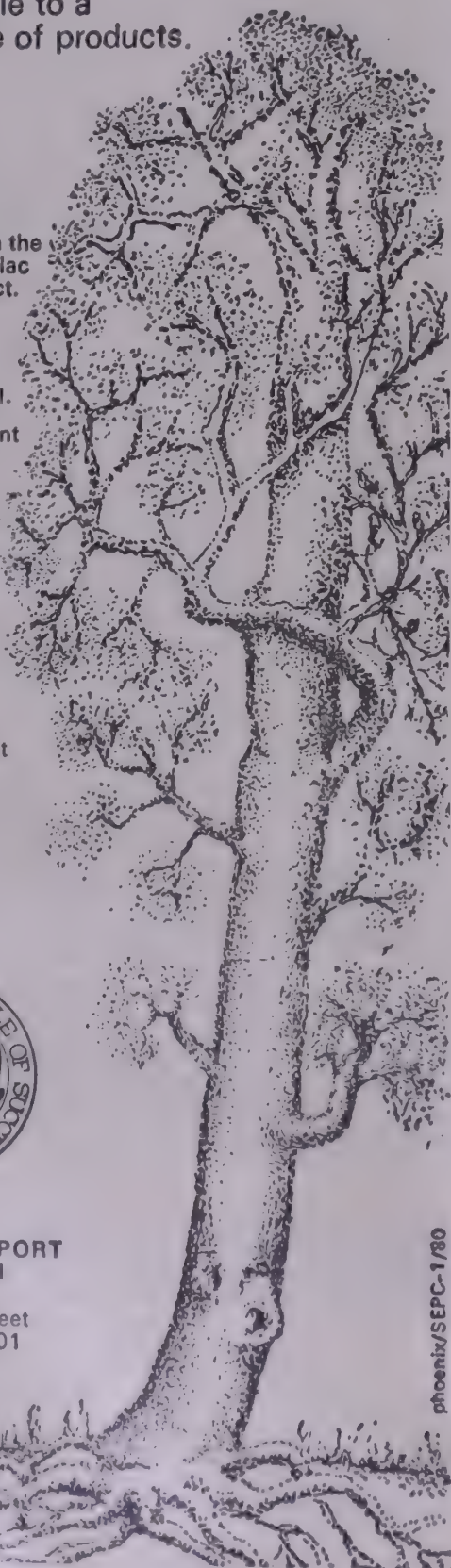
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MANIPUR

Meagre power resources

From OUR CORRESPONDENT

MANIPUR is a tiny state in the North-eastern region with an area of 22,000 sq. km and a population of 14 lakhs. It is one of the most industrially backward states of the country.

The per capita power consumption in the State was only 6 kwh as against 134 kwh for the country as at the end of March 1981. The per capita consumption for domestic purposes was five kwh and that for industrial purposes only one kwh.

The per capita consumption of power in Manipur and that for India are given in Table 1.

Table 1: Per capita consumption of electricity
(Utilities and non-utilities)
(Kwh)

Year	Manipur	India
1970-71	5.1	89.8
1971-72	4.9	93.8
1972-73	8.0	96.4
1973-74	7.9	97.5
1974-75	7.7	99.0
1975-76	9.5	100.0
1976-77	9.9	119.4
1977-78	4.5	120.7
1978-79	4.6	130.9
1979-80	6.0	130.5

Source: Association of Indian Engineering Industry, Engineering Industry Data Sheet, Power Situation, August 1981

At the end of March, 1982 Manipur had an installed power capacity (utilities) of only 15 mw 14.4 mw of thermal power and 0.6 mw of hydroelectric power. This formed only about 2.9 per cent of the total installed capacity of the North-eastern region. The State needs atleast

Table 2: Installed capacity, generation and capacity utilisation in Manipur: 1970-71 to 1979-80

	Installed capacity	Energy generated	Capacity utilisation per cent	
	mw	million kwh	Manipur	All-India
1970-71	6.23	7.10	13.0	43.3
1971-72	6.23	7.10	13.0	45.6
1972-73	5.84	13.06	25.5	45.3
1973-74	5.84	13.06	25.5	45.8
1974-75	5.84	13.06	25.5	43.7
1975-76	10.07	14.95	16.9	45.0
1976-77	8.20	16.59	23.1	47.0
1977-78	10.41	12.84	14.1	44.1
1978-79	15.00	20.62	15.7	43.9
1979-80	15.00	17.00	12.9	42.0

Source: Association of Indian Engineering Industry, Engineering Industry Data Sheet, Power Situation August 1981

30 mw to meet its requirements. At present it receives 3 mw of power from Meghalaya through the Assam grid to meet the deficit. There are a number of diesel power generating sets in the State which had a generating capacity of 6 mw at the end of 1979-80.

Power generation in the State increased from 1.5 million kwh in 1960-61 to seven million kwh in 1970-71 and to 17 million kwh in 1979-80. Capacity utilisation has not been very consistent over the years. The installed capacity generation and capacity utilisation for the period 1970-71 to 1979-80 are shown in Table 2.

It will be seen from Table 2 that capacity utilisation has been very poor and actually there is a deterioration since 1977-78. Further it was much below the all-India figures. The highest utilisation achieved was only 25.5 per cent in Manipur as against the norm of 58 per cent laid down by the Rajyadhyaksha Committee on Power (1980).

Energy requirement

There are hardly any large industries worth the name in the State as lack of adequate power acts as one of the disincentives for industrialisation. The energy requirements of Manipur, though expanding gradually are very insignificant as can be seen from Table 3.

It may be observed here that the Eleventh Power Survey Committee brought down the estimate of power requirement of the State to 65.9 million kwh from 148 million kwh as assessed earlier by the Tenth Power Survey Committee as at the end of 1983-84. The latter had envisaged that the State would

Table 3 Requirement of power in Manipur

Year	Manipur	North-eastern region
		(Million kwh)
1978-79	21.6	909.6
1979-80	18.1	895.8
1980-81	24.8	896.7
1981-82	53.2	1,431.9
1982-83 estimated	59.1	1,587.0
1983-84 estimated	65.9	1,751.4

Source: Answer to the Unstarred Question No. 4,660 in the Lok Sabha on March 23, 1982

have an installed capacity of 38 mw by 1980-81 and that it would become self-sufficient in power. However, the actual capacity reached by that period was only 15 mw.

Importance of hydro-power sources

The entire North-eastern region has a very good hydel potential particularly from the Brahmaputra, Barak, Subansiri and Dihang rivers. While it is possible to tap two million kw from the first two rivers potentiality of the proposed projects on the Subansiri and Dihang are assessed at 1,800 mw and 500 mw respectively. As these projects would be located in other states of the region, Manipur could only wait till the power is made available to it by the North-Eastern Electric Power Corporation which is responsible for developing the power resources of the region.

Loktak project

With such poor position on the power front the state looks forward eagerly for the completion of the 105 mw Loktak multi-purpose hydro-electric power project in Manipur and the Rs 119-crores, 250 mw Kopili hydel project and Rs 43-crore, 60 mw Garo hills (thermal) power projects in Meghalaya which Manipur expects to share.

The commissioning of the Loktak hydro-electric project in the state to produce 105 mw in three phases is reported to be delayed by more than six years on account of various difficulties.

Out of 1,949 villages (according to 1971 Census), 334 were electrified as on March 31, 1981 which worked out to 17.1 per cent. The rural population covered by electricity worked out to 54.4 per cent. The agricultural pumps energised in the state were only ten.

MEGHALAYA

Low power consumption

From OUR CORRESPONDENT

SHILLONG

POWER generation is one of the important industrial activities in Meghalaya. The State supplies power to Assam, Manipur and other States in the North-eastern region. In spite of having sufficient power, the consumption in the State is much below the all-India average. Per capita consumption of electricity in Meghalaya has been fluctuating probably due to extraneous reasons, since power generation in the State has been increasing from year to year. Table 1 gives the per capita consumption of power in Meghalaya, the North-eastern region as well as in India. Compared to other states, union territories in the North-eastern region such as Arunachal Pradesh, Manipur, Mizoram and Tripura where per capita power consumption is 6 to 12 kwh, Meghalaya is better off.

Installed capacity and power generation

There are three important power stations in Meghalaya namely Umiyam Hydel station, Umtrew Hydel station and Nagalbibra thermal station having a total installed capacity of 130.2 mw by end of March 1980. With the commissioning of the Stage III of the Umiyam Hydel station in 1978-79, 60 mw of capacity has been added in the State. Also, the total capacity of the Umiyam station was raised to 114 mw. Installed capacity, power generation and capacity utilisation in Meghalaya are given in Table 2.

Installed capacity in the State is likely to go up substantially by the end of the Sixth Plan with expansion projects and new projects. A provision of Rs 45 crores in the State Sector has been made in the Sixth Plan for power development. A capacity of 60 mw is expected from the Umiyam-Umtrew Stage IV, work on which started in May 1981. The Nagalbibra thermal station is expected to add another 60 mw. The biggest power project proposed in Meghalaya is the 250 mw Kopili hydel project on the Assam-Meghalaya border which is expected to be commissioned by March 1983.

Power consumption

The Meghalaya State Electricity Board supplies power to other States in the North-eastern region through the

Assam grid. During 1979-80 the Board exported 272.37 million kwh of electricity out of a total sale of 324 million kwh. Data for the years 1975-76 to 1979-80 show that these exports ranged from 79 per cent to 84 per cent of the state's power sales. This leaves about 21 to 26 per cent for consumption in the State.

Comparative figures for pattern of power consumption during 1975-76 and 1979-80 are given in Table 3.

There is a remarkable improvement in the consumption for domestic and

commercial purposes over the period from 1975-76 to 1979-80. In fact the increase of about 18 million kwh in the total electricity sale within the State during the five-year period is accounted for by these two classes of consumers.

Rural electrification

Meghalaya had electrification in 70 villages out of 4,583 villages by June 30, 1981. With only 15 per cent of villages electrified it is ranked last among States. During 1982-83 another 200 villages are proposed to be electrified.

Table 1 : Per capita consumption of electricity

Year	Meghalaya	North-eastern region	(kwh)
			All-India
1975-76	33.8	25.5	110.0
1976-77	33.3	29.4	119.4
1977-78	24.8	29.6	120.7
1978-79	37.5	31.8	130.9
1979-80	31.5	30.9	130.5

Source : Association of Indian Engineering Industry, Engineering Industry Data Sheet Power Situation August 1981

Table 2 : Installed capacity, energy generated and capacity utilisation (utilities and non-utilities)

Year	Installed capacity (mw)	Power generated (gwh)	Capacity utilisation (Per cent)		
			Meghalaya	North eastern region	All India
1975-76	68.0	180.8	30.3	29.2	45.0
1976-77	73.3	178.2	27.7	34.5	47.0
1977-78	71.1	222.8	35.8	35.6	44.1
1978-79	131.2	215.5	18.8	31.6	43.9
1979-80	131.0	321.0	28.0	30.2	42.8

Source : Association of Indian Engineering Industry, Engineering Industry Data Sheet, Power Situation August 1981

Table 3 : Pattern of power consumption

Class	Percentage	
	1975-76	1979-80
Domestic		
Commercial	6.3	25.6
Industrial	1.1	19.7
Bulk supply (including licencees)	39.9	31.8
Others (including irrigation and agriculture)	52.1	18.2
	0.6	4.7
	100.0	100.0

NAGALAND

Thermal is the major source

From OUR CORRESPONDENT

KOHIMA

THE State of Nagaland comprises the former Naga Hills district of Assam and the former Tuensang Frontier Division of the North East Frontier Agency. It has an area of about 17,000 sq km and population of about 8 lakhs.

The State has not been able to cope with the ever-growing demand for power in the State. It is mostly dependent for its power requirement on Assam. The State's unrestricted demand for power is about 10 mw of which Assam is able to supply about 6 mw.

The State had a total installed capacity of 3.66 mw at the end of March 1981. The major source of power in

Nagaland is thermal which accounts for 60 per cent of the total installed capacity of power in the State. The Dzuza hydro electric project with an installed capacity of 1.5 mw which was commissioned in March 1979 is the only hydro power station in the State.

The peak period demand in the State by the end of 1983-84, as estimated by the Tenth Annual Electric Power Survey of India, would be 34.1 mw and 70 mw by the end of 1988-89.

During 1979-80 the per capita power consumption (aggregate) in the State was 24 kwh as against 134 kwh for the country as a whole. The per capita consump-

tion of power for industrial purposes during 1980-81 was only one kwh and domestic purposes 8 kwh against 73 kwh and 14 kwh respectively for India.

As on June 30, 1981, out of 900 villages, 384 villages or 40 per cent of the total villages were electrified.

Recently the Union Government cleared the project report for the setting up of a 105-mw (3 x 35) hydro electric project at Doyang at an estimated cost of Rs 88 crores. Besides this, the State Government has submitted a project report to the Union Government to set up a thermal power station at Borjan with an installed capacity of 30 mw.

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ORISSA

Overdependent on hydro electricity

From OUR CORRESPONDENT

BHUBANESWAR

ALTHOUGH Orissa is usually considered a surplus state in power, its overdependence on hydro electricity poses awkward problems in years of drought. This year, for example, a prolonged drought has inflicted a severe power crisis on the State. Practically all the major and medium industries have to manage with 20 to 25 per cent of their power requirements, with the inevitable loss of production. Since the third week of July, hydel generation in the State has practically stopped. The only thermal station at Talcher with capacity of 250 mw provides about 200 mw or so to cater to the needs of the State. Andhra Pradesh having declined to supply any power, Orissa has been left to its own devices. Consequently, Rourkela steel plant and a host of other power-intensive metallurgical units have been affected severely, some ceasing operations altogether.

The per capita availability of power in Orissa is 109.28 kwh as against 123.04 kwh in West Bengal, 77.34 kwh in Bihar and 40.62 kwh in Assam.

The State Government is anxious to raise the proportion of thermal electricity in the total power generation of the State from the present 27 per cent to a higher level. Accordingly, it is proposed to add 220 mw to Talcher thermal power station, which has an installed capacity of 250

mw at present. In other words, the generation capacity of this power project is being nearly doubled.

At present, the State has a total power generation capacity of 914 mw and by the end of Sixth Five Year Plan, it is proposed to add 560 mw of electricity, including 220 mw through thermal expansion at Talcher. The additional 340 mw will come from major hydro electricity projects, namely, the Rengali hydro scheme (100 mw) and the Upper Kolab hydro scheme (240 mw).

It would be interesting to take a look at some of the power expansion projects in Orissa which promise to contribute substantially to the growth of additional capacity over the Sixth Plan period. The Upper Kolab project will cost about Rs 58 crores and it envisages construction on the bank of river Kolab of pressure tunnel, a surge shaft, per stock tunnels, a valve house, a tailrace, a power house, a switchyard and a double circuit 220 kv transmission line. This is a multipurpose project with irrigation forming a major part of the scheme.

Bigger project

A bigger project which does not form part of the Sixth Plan power expansion programme, but on which work has already started is the Upper Indravati electric project. It envisages the construction of four dams—one on the main river

Indravati, and one each on three of its tributaries, forming a single reservoir and three two-link channels. However, it is only a power project and therefore the estimated capital cost at present is about Rs 47 crores.

The Rengali hydro electric project is designed to produce 100 mw of power through two equal sized units. However, it is now proposed to add a third unit at an estimated cost of Rs 20 crores. An effort is being made to complete the unit within the Sixth Plan period.

Other important features of the Sixth Plan power development scheme in Orissa are the transmission and the distribution schemes. The construction of a 400 kv single circuit line from Jaipur to Talcher via Indravati will be taken up and completed. The length of the line is 423 km, but later on it will be extended further by a 260 km line under a centrally sponsored scheme, upto Orissa and West Bengal border towards Kharagpur ghat in West Bengal. This is to form a part of the proposed national grid. The government proposes to spend about Rs 50 crores on this project during the Sixth Plan period. The existing length of 220 kv transmission lines in the State is 1825.73 kilometres, and this will be expanded by more than one-third during the next ten years.

Another major feature of the power project in the State is increasing electrification. According to the Sixth Plan document of the State Government, out of 36,992 inhabited villages, 17,000 have already been electrified. It is proposed to electrify 14,102 additional villages during the Sixth Plan.

Yet another important feature of the programme is the lift irrigation scheme. Some 13,000 irrigation pumps have been energised so far, but the rate of energisation is proposed to be speeded up during the Sixth Plan period, when it is expected that 31,562 irrigation pumps will be energised.

The State Government propose to spend a total of Rs 137.70 crores on irrigation projects. During 1980-81, 11.97 crores were spent, but the rate of work was substantially raised in the next year when expenditure under the head moved up to Rs 24.95 crores. The volume of expenditure is expected to steadily increase during the remaining

Table 1 : Installed power capacity of Orissa

(Name of project)	Installed capacity (mw)		
Hirakud at States I & II	270	..	
Machkund (Orissa's share)	34	..	
Thermal Power Station at Talcher	250	..	
Balimela	360	..	
	914		

Table 2 : Expansion projects during the Sixth Plan

(Name of project)		(Scheduled date of completion)		
		1st unit	2nd unit	3rd unit
Talcher Thermal Power Station	2x110 mw=220	June'81	Dec'81	—
Rengali	2x50 mw=100	Oct'83	March'84	—
Upper Kolab	3x80 mw=240	Nov'83	July'85	May'85

PUNJAB

Power hungry state

from OUR CORRESPONDENT

CHANDIGARH

FOR all its phenomenal progress in both agriculture and small-scale industry, post-partition Punjab has throughout been power hungry. Even though the multi-purpose Bhakra-Nangal Project came as a boon to the northern region, specially Punjab, the ever-growing demand for energy outstripped supply year after year. In fact the years when the power availability was considered wholly adequate for the State's entire needs were few and far between. In recent years, in particular, the supply-demand gap has been rapidly widening because of the upsurge in development activities, and even the supplementary efforts through additional hydel and thermal plants have not solved the problem.

Apart from the unsatisfactory availability, the quality is unstable. Frequent interruptions, wide fluctuations and substantial load-shedding, especially in summer, have become familiar phenomena in the State. The supply-demand gap has become disconcerting and, worse, it is likely to continue.

Principal sources

The principal sources of power for Punjab (already functioning or underway) are: (1) The Bhakra (Left bank power house) five units of 90,000 kw each, all of them commissioned between November 1960, and December 1961. (2) The Bhakra (Right bank power house) five units of 120,000 kw each. The first unit started functioning in May 1966, and the others started later. (3) The Ganguwal power house (three units, two of 24,000 kw each and the third of 29,250). (4) The Kotla power house (three units, two of 24,000 kw each, and the third of 29,250 kw). (5) The Uhl river schemes in Joginderanagar (Himachal Pradesh) — four sets of 12,000 kws each, including one standby. (6) The U.B.D.C. Project (Stage I)—three units of 15 mw each (all units commissioned between August 1971, and April 1973). (7) The Beas Project (both Dehar and Pong)—Punjab's share is 316 mw from Unit-I and 60 mw from Unit II. (8) The Shanan Renovation (48 mw + 60 mw) and Extension (50 mw) projects. (9) The Anandpur Sahib Hydel Project. (10) The Mukerian Hydel and (11) The U.B.D.C. — Stage II.

The thermal and diesel plants are:

(1) The Guru Nanak Dev plant at Bhatinda (four units of 100 mw each).

owing to faulty design, staff problems and irregular functioning. (2) The thermal power station at Nangal (one small unit of 5,000 units) and (3) small diesel generating units for emergencies—33 sets aggregating 60 mw at various stations in the State.

Some idea of the fast expansion of power consumption in Punjab can be had from the following figures: 1967-68 (the first full year of the truncated State after the reorganisation in November 1966) total consumption (agriculture, industry, domestic and other uses)—2,134 million kwh; total consumption 1969-70—2,498 million kwh; 1973-74—2,772 million; 75-76—3,379 million kwh; 76-77—3,584 million kwh; 78-79—4,656 million kwh; and —1979-80 4,908 million kwh.

Consumers

The total number of consumers in the State in 1980-81 was 21,61,863, against 9,55,234 in 1970-71 and 15,41,487 in 1976-77. Significantly, the percentage of agricultural consumers has risen from 9.57 in 1970-71 to 12.87 in 1980-81. The annual per capita consumption of electricity in Punjab has increased from 161.33 kwh in 1967-68 (the first complete year of the State's existence after the reorganisation of Punjab on November 1, 1966) to 196.35 kwh in 1973-74, to 239.97 in 1976-77, 302 kwh in 1978-79 and to 313.04 kwh in 1979-80. The over 50 per cent increase in the per capita consumption during the past five years or so is significant. No less significant is the rapidly increasing share of agriculture in the total consumption; from 10.86 kwh per capita in 1967-68 it increased to 50.26 kwh per capita in 1973-74; to 107.19 kwh in 1978-79 and further to 128.56 kwh out of the total per capita figure of 313.04 kwh for the next year (1979-80).

The pending applications numbered 2,27,892 in 1980-81; out of these, 1,28,625 were for agricultural connections. This shows the pressing and fast growing demand for power by the agriculturists. The pending applications for industries, on the other hand, numbered only 8,358 and those under the head "commercial" numbered 9,353. The large share of power consumed by agriculturists of all categories is also apparent from the number of tube-wells energised during the past few years. The number of such tube-wells has increased from 32,307 in May 1967, to 1,38,941 in 1974-75

(figure for the entire State), to 2,33,255 in 1978-79, and further to 283,325 in 1980-81. The tube-wells consume nearly 200 crore units of electricity every year—about 43 per cent of the State's total consumption. About 45,702 small and 5087 medium-size industries together consume 54 crore units of power annually.

All the villages and towns of the State were electrified by 1977, Gurdaspur district leading the other 11 districts with 1,521 such connections. The electrified villages numbered 3,989 in May 1967; the number rose to 5018 in 1969 and to 6366 in March 1972.

Installed capacity

The installed capacity in the State in 1979-80 was 1536.34 mw; the gross generated power (million kwh) 6235.25; the consumption in that year 4908.52 kwh, and the number of consumers 20,09,213. It is significant that the annual per capita consumption of electricity in Punjab at 313.04 kwh was the highest in the entire country in 1979-80 (and presumably the State still maintains the lead), the total figure being inclusive of agriculture, domestic uses, public lighting and industry and commercial utility). The State next in order is Gujarat, with 227.52 kwh, Haryana's corresponding figure being 193.86 kwh. The Delhi Union Territory, however, leads with 356.71 kwh, Chandigarh's figure being 321.20 kwh, but Delhi and Chandigarh represent cases of cities with a large concentration of population and cannot be fairly compared with the full-fledged states.

Enlargement of power potential

The State's programme for enlargement of its power potential and actual generation includes extension of the Beas Project, (Units I and II), of the Shanan Project, the Anandpur Sahib Project, the U.B.C.D. (Stage II) and the Shahpur Kandi Project (by an embankment dam on the Ravi near Shahpur Kandi, with two units of 47 mw each; the Ropar Thermal Station (5 x 200 mw). But the most important multi-purpose scheme which is expected, on completion, to solve most of Punjab's irrigation and power problems is the 420 mw Thein Dam Project, which envisages the construction of a 482-ft high dam across the Ravi river at Thein near Pathankot, and thus help store 2.98 million acre feet (maf) of water. It is proposed to instal four units of 120 mw each at the site

Like Haryana, Punjab has also approached the Centre for setting up a nuclear power plant in the State. But the Centre has not conveyed its views on the proposal so far.

In the last Annual Plan the energy requirement of the State was estimated at 6123 mkwh while the availability was put at 5433 mkwh. The Sixth Plan (1978-83) states: "On account of slippages in the implementation of the power projects, the additions to the installed capacity will be less than anticipated. The shortfall for 1981-82 was estimated at 259 mkwh and for 1982-83 304 mkwh. "It seems," the Plan document adds, "that unless further measures are taken, the State will face capacity deficits throughout the Sixth Plan period. Lower installed capacity will mean, other things being equal, less energy availability."

The State's power system suffers from high rates of transmission losses (made worse by unchecked pilfering, with the offenders escaping scot-free because of local influence). The percentage of transmission losses has fortunately been reduced in recent years, the figure having come down from 29.10 in 1971-72 to 23.96 in 1974-75 and further to 21.53 in 1977-78.

Joint exploitation

According to the Sixth Plan, the "ideal solution would be to undertake joint exploitation of the large hydro-potential of Himachal Pradesh and J. & K. on a fair basis, for the mutual benefit of participating states. Punjab must spare no effort to bring this about." The situation certainly calls for measures to improve capacity utilisation, monitor implementation of projects in time and reduce further the heavy transmission losses.

According to a recent assessment by the chairman of the Punjab State Electricity Board, the power prospects in Punjab will continue to be bleak at least until the end of the current century. A perspective power plan prepared by the board indicates that the State's requirements by the end of the ninth five-year plan (2,000 A.D.) will be about 1,12,433 million units against the availability of 25,378 million units, leaving a huge gap of 87,055 million units. The perspective plan was drafted last year, but the position remains broadly the same, though the gap may be shorter in due course in view of the plans for additional generation, especially hydel.

The gap during the Sixth Plan itself is likely to go up from 2,152 million units

during 1982 to 2908 million units by 1984-85. The installed capacity is expected to increase from 1,599 mw to 2,450 mw during the period. The available generation capacity is at present 1035 mw and it will increase to 1535 mw by 1984-85. The State Government has for the past many years been laying great emphasis on power generation in its budget estimates. Almost 50 per cent of the current year's Plan outlay of Rs 385 crore is earmarked for power generation.

As if to provide further evidence of the uncertain power situation in the State, a four-hour cut was imposed on July 1 on urban feeders because of the shortage resulting from staff trouble at the Bhatinda thermal plant and to enable the farmers to get more power for paddy transplantation. Each big industrial unit in the state with a connected load of 1 mw or more was ordered on July 7 to remain closed for 10 days. A complete ban was imposed on the use of air-conditioners and the general public was urged to consume only the bare minimum of electricity. Such cuts for the urban sector and setbacks to industrial output are quite usual in the State.

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RAJASTHAN

Poor planning

from OUR CORRESPONDENT

JAIPUR

AMONG the power deficient states in the country, Rajasthan's position is probably the worst. As a result the industrial tempo in the State has been greatly affected.

The present crisis, which seems to be of a lasting nature, has been caused by a variety of factors and no doubt lack of proper planning is the root cause of the big power shortfall. The exact requirement of power of the State has not been correctly assessed by the authorities.

The perspective plan prepared by the government on the power requirements of the State is not a perfect document. This is due to the fact that the authorities have failed to make a proper assessment. Further, lack of funds has affected power projects in the State though it has been the policy of the Government to provide maximum allocations for power generation.

Development of local power

A new awareness on the power front is now discernable in the government with the Chief Minister, Mr Shiv Charan Mathur, giving top priority to the development of local power generation from available sources. Mr Mathur has disclosed the possibility of putting up smaller thermal power stations in the State and in this connection he has shown his eagerness to exploit to the maximum the scattered lignite deposits in the State. Further, the Chief Minister has emphasised that the locally available hydel sources should be harnessed at the earliest.

Some of the schemes prepared by the Rajasthan State Electricity Board are the Mt. Abu hydel project (2.5 mw), Anoopgarh hydel project (2.5 mw), Suratgarh hydel project (4 mw), Charanwali hydel project (2 mw), Birlaspur hydel project (1.5 mw) and RMC Kotah (6 mw).

Palana project

In an interview to *Commerce*, Mr Mathur said that the lignite deposits at Palana in Bikaner district of the State were being exploited to put up a power plant. Discussions have been held with a German firm which will provide both technical and financial assistance for the project.

The Palana project has been talked about for a long time but action on the

Mathur's assumption of office. The project will consist of two units of 60 mw each and the estimated cost of the project will be Rs 250 crores.

The Central Electricity Authority has cleared the project from the technical and fiscal angles, but the Planning Commission has yet to give the investment clearance. The Centre has stated that it may not be possible for it to provide the desired funds for the project. However, the State Government seems to be very keen to see the project through.

A sum of Rs 650 crores has been provided for the power sector in the State's Sixth Plan and during 1982-83 a sum of Rs 115.67 crores will be spent on power compared to last year's Rs 117.85 crores. The outlay for 1980-81, the first year of the Sixth Plan, was only Rs 110.52 crores.

Major projects in Sixth Plan

Among the major projects included in the Sixth Plan, the important ones are the Beas Stages I and II, Mahi Stage I and II, Kotah Thermal Stage I and II and Palana Lignite Project. A sum of Rs 345 crores will be spent on these projects.

A sum of Rs 33.16 crores will be spent on new generation schemes and a sum of Rs 143 crores spent on laying transmission lines. A sum of Rs 90 crores has been earmarked for rural electrification.

The Kotah Stage I project consisting of two units of 110 mw is expected to be commissioned during the current year. The commissioning of the project has been somewhat delayed due to a mishap in the boiler.

The first 25 mw unit of the Mahi project is expected to be commissioned in December next year and the second of the same capacity in December 1984. Two more units at Mahi, of 48 mw capacity each, will be commissioned in 1985.

Work on Kotah Stage II, consisting of two units of 210 mw each has been taken up and according to present projections made by the Rajasthan State Electricity Board (RSEB), it should go on stream in the early part of the Seventh Plan period.

The RSEB has also started work on the Beas extension project at Dehar and at Pong. In the Dehar project, Rajasthan's share is 20 per cent whereas in the Pong project, the State's share has been placed

at 58.5 per cent. The first unit of 165 mw at Dehar is expected to start generation by June next year.

Already four units of 165 mw at Dehar and four units of 60 mw at Pong are in operation meeting the bulk of the State's power requirements.

In the Singrauli project in Uttar Pradesh with a capacity of 2,000 mw, being put up in the central sector, Rajasthan's share has been kept at 300 mw. Some power is expected from the project sometime this year. Steps have been taken to lay a 400 kv transmission line to carry power from the Singrauli project between Kanpur and Jaipur. The new line is expected to be ready by 1984-85.

The RSEB is also erecting a 220 kv line between Bharatpur and Agra to carry power from Singrauli.

The Chief Minister has explored the possibilities of joining hands with the Himachal Pradesh Government in putting up new projects. Already a memo of understanding has been signed between the Chief Ministers of Rajasthan and Himachal Pradesh. In the Sanjay Vidyut project being put up in Himachal Pradesh, Rajasthan would be a partner. Energy generation from this project is expected to start from June 1985.

In the Kol hydel project of 600 mw in Himachal Pradesh, Rajasthan is also a partner to the tune of 51 per cent. Investigations have started and in the current year the State Government has earmarked a sum of Rs 2 crores for survey and investigations.

Non-satisfactory performance of existing units

The total generation capacity of Rajasthan in 1951 was only 13.27 mw compared to 1158.5 mw at present. The increase in the installed capacity no doubt is phenomenal but what is creating problems is the failure of the existing units to work satisfactorily. Besides the two projects at Satpura in Madhya Pradesh and the atomic reactor near Kotah, all other sources of power generation available to the State are hydel.

In the Bhakra Nangal project, Rajasthan's share is 168.5 mw while the State should get in normal times 193.0 mw from the Chambal project and 272 mw from the Beas project. The installed capacity of the Rajasthan Atomic Po-

Continued on page 266

SIKKIM

Potential for hydro power development

From OUR CORRESPONDENT

THE per capita power consumption in Sikkim was 40 kwh in 1979-80 as against 30.2 in 1977-78. The per capita power consumption comprised 19 kwh for domestic use and 8 kwh for industrial use. Industrialisation in this inaccessible hilly terrained State started only after its merger with the Indian Union in 1975. The per capita consumption of power for industrial purposes in the state was only 8 kwh per cent of the total consumption as compared to 73 kwh for all-India.

Requirement and availability of power

During the year 1980-81 Sikkim required 26 million units of power while the availability was 33 million units thus showing an excess of seven million units. During 1981-82, however, requirement was 35 million units and availability was 27 million units—a shortage of 8 million units or 22.8 per cent. The deficit between the availability and energy demand after the Rongnichu

GANGTOK

hydel plant closure in 1980 was of the order of 4 mw. Power shortage and load shedding is being experienced in the State since then.

Installed capacity

Power generation of some reckoning commenced in Sikkim only after the commissioning of the first unit of the 6 x 2 lower Lagyap hydel project in 1979. Prior to that the 2 mw Rongnichu hydro electric scheme was the sole source of power supply in the State. But by 1977 this plant which was commissioned in 1964 required renovation. Thus, after commissioning of the lower Lagyap project renovation of the Rongnichu project was started in 1979-80.

Besides the Rongnichu hydel scheme, the one mw diesel power plant at Gangtok had to be taken up on a crash basis to ensure power supply to the capital city. Three micro-hydel schemes with a total capacity of 0.9 mw were also proposed for the year 1980-81. As against the achievement of 6.4 mw of installed capacity at the beginning of the

Sixth Plan a target of 16.9 mw is envisaged in the State sector at the end of the Sixth Plan.

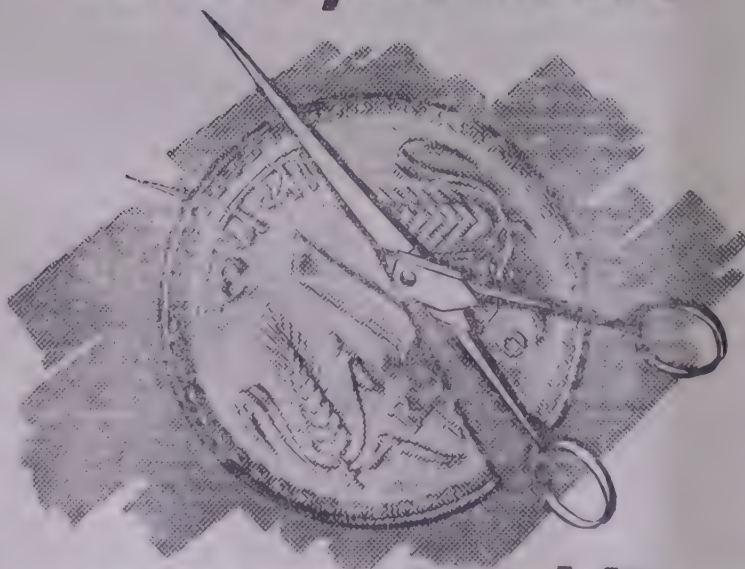
Central sector power projects

To meet the power needs of Sikkim as well as of neighbouring States such as West Bengal, the Central Government has drawn up plans for a number of power projects in Sikkim. A new 60-mw hydel project at Legsip over the Ran river in West Sikkim has already been taken up by the National Hydro Electric Corporation Limited. Two more important hydel projects proposed in Sikkim are—(1) the Teesta project to produce 1,810 mw of electricity and (2) the Singhik project to produce 1,000 mw of power.

Rural electrification

The State proposes to electrify 100 villages during the Sixth Plan as against 53 villages electrified at the beginning of the Sixth Plan. By June-end 1981, 100 villages were electrified thus leaving 100 villages to be electrified in the rest of the plan period.

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Rajasthan : Poor planning

Concluded from page 265

wer Project (RAPP) is 400 mw. From Satpura the State should get 125 mw.

The faulty working of the RAPP which is now an established fact, has created much of the power problem in Rajasthan. The atomic units have not worked smoothly and it seems that the basic designs there have been so serious defects.

Both the units of the RAPP are prone to repeated trippings. Greatly concerned over the working of the RAPP, the Centre has set up a high-level committee to go into it is working.

The RSEB has no control whatsoever on the working of the RAPP units. In fact, it does not know the reason for frequent faults in the units. The Government has urged the Centre to associate RSEB engineers with the working of RAPP but the response it has received is not encouraging.

At the end of the Sixth Plan period the installed capacity is expected to increase to 1907 mw, with the Kotah thermal power station providing 430 mw, 124 mw flowing from the Singrauli

TAMIL NADU

Grim struggle for self-sufficiency

From OUR CORRESPONDENT

MADRAS
PER capita consumption of electrical energy is generally accepted as a reliable indication of the level of economic development of a state. In this respect Tamil Nadu compares favourably with the rest of India. The per capita consumption of power in Tamil Nadu is higher than in many other states, though low according to international standards.

After independence, Tamil Nadu's development in the power sector was spectacular. At the same time, the demand for power went up several fold because of the phenomenal growth of the industrial and agricultural sectors. Even though the Tamil Nadu Government pushed through its programme of planned power development, according to priority to this sector, the hunger for power continues unabated. Power cuts and curbs often throw industries out of gear and the state's normal economic life is paralysed year after year.

It was only on July 1 that the power cut imposed on peak demand of high tension industries in Tamil Nadu was lifted. Since March 4, high tension textile mills were subject to 45 per cent demand cut and other HT industries with connected load of 2 mva and above to a cut of 25 per cent. The decision to remove the cut followed improvement in the hydel storage levels in the reservoirs.

The present power position, according to the Tamil Nadu Electricity Minister Mr S. Ramachandran, is satisfactory, as hydel power generation has reached 700 mw and thermal plants are generating 1,025 mw making a total of 1,725 mw as against the state's peak demand of 1,740 mw. However, a discouraging development after the removal of the power cut was the sudden stoppage of Kerala power to Tamil Nadu, depriving the latter of 1,017 million unit of power on account of differences over the price to be paid for the power. The Kerala Minister for Electricity, Mr Balakrishna Pillai had made it categorically clear that his state could resume power supply to Tamil Nadu only if the latter agreed to pay the

price. Tamil Nadu feels that the enhanced rate demanded by Kerala would cast a very heavy burden on its exchequer and this money could better be spent on achieving self sufficiency in power.

Three-pronged attempts

Self-sufficiency in power is sought to be reached by a three-pronged attempt, viz maximising capacity utilisation of power plants, economising consumption of power and speeding up the execution of on-going power projects. If these attempts succeed, Tamil Nadu could manage without outside help. While one could feel comfortable about the immediate power picture, the situation in the long run will not be comfortable. The Federation of Indian Chambers of Commerce had forecast a shortage of at least 20 per cent in power during the remaining years of the Sixth Five Year Plan. Energy availability in the state, according to the FICCI survey will be 12,204 million units as against a demand of 15,150 million units, leaving a deficit of 2,946 million units. The shortage will hit the industries, especially because of the high priority being accorded to agriculture.

Before independence, the few power projects in Tamil Nadu were Pukara in Nilgiris (70 mw), Mettur in Salem district (40 mw) and Papanasam in Tirunelveli district (28 mw). The Madras Electricity Supply Corporation which was privately owned was taken over by government, along with the Basin Bridge Thermal station in Madras and its metro distribution network. The Madras Electricity Department came into existence as a result.

With the achievement of independence, an ambitious plan was drawn up to increase power generation and distribution. In 1948, the Mettur hydro electric station was connected with the Madras thermal station, thus laying the foundation for the State power grid.

In 1948 the Government decided to nationalise private electricity distribution companies and by 1950 all the 20 licensees' undertakings were taken over by Government.

Under the First Five Year Plan

received its initial impetus and installed capacity of the grid was increased from 156 mw to 256 mw, with the commissioning of a new hydro electric station at Moyan in the Nilgiris and by adding new units to existing stations.

Under the Second Plan (1956-61), emphasis was laid on food production and expansion of industries through power development. During the period, the following projects were completed: Periyar Power House; Kundah Power House I and II and an additional plant at Basin Bridge (thermal) at Madras. These new schemes resulted in doubling the grid's generating capacity from 256 mw to 571 mw at the end of the second plan period. Peak demand also rose up to 381 mw.

During the Third Plan (1961-66), work on the Ennore Thermal Station in Madras was started and five new hydel stations were commissioned. They were: Kundah Power Houses III (180 mw), IV (50 mw), and V (20 mw) and Mettur Tunnel Power House (200 mw).

The Neyveli thermal station under the central sector contributed 300 mw to the Tamil Nadu grid during the period to enable the state to reach 1,370 mw installed capacity at the end of the Third Plan. Peak demand also rose to 717 mw and per capita consumption also moved from 60 units to 92 during the period.

The Tamil Nadu Electricity Board was formed in 1957 and the South Regional Electricity Board (comprising the power boards of Tamil Nadu, Kerala, Andhra Pradesh and Karnataka) in 1964.

Tamil Nadu had the trauma of experiencing 100 per cent power cut on high tension industries in 1963-64 due to failure of the monsoon, on account of which hydel capacity was completely shut down. The emphasis thereafter shifted from hydel to thermal power generation. Atomic power also came in for Government's attention and plans were chalked out to set up a nuclear power plant (470 mw) at Kalpakkam near Madras.

The period 1966-69 came under annual plans which mainly centred on implementation of on-going

schemes. No new scheme was initiated on account of paucity of funds. Total additional capacity created in the Tamil Nadu grid between 1969 and 1974 was 825 mw and from 1974 to 1979 was 455 mw. The installed capacity increased fifty-fold from 50 mw to 2,819 mw during the six plans. Energy generation also increased more than 100 fold from 70 million units to 8,000 million units. The number of consumers went up from one lakh to 16 lakhs and per capita consumption of energy touched 150 units.

Increasing investments

Investment on power in the five year plans of Tamil Nadu have increased steadily. Outlay on this sector in the state's Sixth Plan is as high as Rs 1,020 crores, out of a total plan outlay of Rs 3,150 crores (about 33 per cent). The Tamil Nadu grid is served by 18 hydro electric stations and 3 thermal stations with an aggregate installed capacity of 2,329 mw, excluding Neyveli with 600 mw.

The Sixth Plan proposal for 1980-85 envisages the following power schemes: Tuticorin thermal project III unit (completed and inaugurated on July 27, 1982) (210 mw), Servalar hydel project (20 mw), Kadambarai Pumped Storage (hydel) (4 units of 100 mw each — total 400 mw. Lower Mettur Hydel 120 mw, an additional unit of 20 mw for Kundah Power House V, Mettur Thermal Scheme (4 x 210 mw, total 420 mw). These are on-going projects either cleared by the Planning Commission or under execution.

Twelve new schemes involving total installed capacity of 1,311 mw envisaged in the Plan include the following: North Madras Thermal Station (5 units of 210 mw each), a new 110 mw thermal unit at Basin Bridge, Madras, to replace the existing one, the North Madras Thermal Station with 630 mw capacity, three micro hydel stations (16 mw each) at Pykara, Lower Bhavani and Vaigai dam, Mettur Thermal Station extension (2 x 210 mw) and Tuticorin extension (210 mw and 500 mw) also deserve mention.

The Tamil Nadu grid's installed capacity is proposed to be raised from the present 2,329 mw to 4,089 mw by the end of the Sixth Plan. This will exclude the Madras Atomic Power Project, Kalpakkam with 470 mw and the second thermal plant at Neyveli (630 mw), both in the central sector.

Table 1 : Plan-wise power development in Tamil Nadu

	Preplan	I Plan	II Plan	III Plan	IV Plan	V Plan	80
Installed capacity (mw)	156	256	571	1370	2254	2424	22
Peak demand (mw)	110	172	381	717	1207	1641	1
Generation & purchase (m.u)	630	1053	2214	4041	6948	9453	10
No of consumers (in lakhs)	2.5	4.5	7.7	13.6	27.07	34.00	43
Per capita consumption (units)	12	21	60	92	127	157	
No of towns villages & hamlets electrified	1813	3543	18760	22137	61072	63339	63
No of pumpsets energised	—	32440	117695	2565.94	681205	805616	919
Capital outlay (crores) (Rs)	23.82	54.02	133.21	293.28	552.20	799.09	1184
Gross Revenue	3.12	5.94	15.82	34.67	114.28	223.14	261

for conventional methods of power generation, the State Government had sent to the Centre proposals to set up six gas turbine units of 50 mw capacity each, at an estimated cost of Rs 113 crores. The gas turbines have the advantage of short gestation periods (12 to 18 months) and may be commissioned in 2 years. With the prospects of more gas from Bombay High and chances of oil in the Cauvery basin, the Tamil Nadu Government considers it would not be difficult to run the gas turbine stations.

The Sixth Plan outlay on rural electrification will be Rs 90 crores to extend supply to the remaining 154 villages, and 390 hamlets, 4.5 lakh huts and 1.5 lakh pumpsets. Already 2.6 lakh huts have been electrified in the State.

Electrification of huts

In fact electrification of huts is the latest scheme of the Tamil Nadu Government. A sum of Rs 10 is collected from each hut dweller as initial payment for a service connection to provide one light. A sum of Rs 2.50 is charged as power charge per month. Another achievement of the Tamil Nadu Electricity Board is that all old Harijan colonies have been electrified.

The Tamil Nadu Government is aware of the handicaps the State's power sector is suffering from and the State's Minister for Electricity, Mr S. Ramachandran, had brought to the attention of the Government of India some issues exercising the mind of the State Government. They are: (1) the need for ensuring adequate coal supply to the State's thermal stations at Ennore, Basin Bridge and

ment with BHEL for supply of spares and services, (3) sharing of power from central sector projects by state in the region on the basis of deficit and (4) implementation of inter-state projects as joint venture schemes by NHPC under the auspices of the Centre.

All the above issues have a crucial bearing on the working of the Tamil Nadu Electricity Board and a settlement of the issues would move the constraints faced by the board. For example, the sharing of power from Central projects is an immediate concern for Tamil Nadu. The Tamil Nadu Government has already given an undertaking to the Centre that it (Tamil Nadu) would consume all the power from Neyveli (both existing and new units). The Centre's formula of sharing Neyveli power, based on past central assistance and energy consumption envisages only a relief of 176 mw from Tamil Nadu out of the 630 mw from Neyveli's second thermal station under erection. This, according to the Tamil Nadu Electricity Minister, is contrary to earlier understanding and expectations. Tamil Nadu has even foregone royalty payable by Neyveli Lignite Corporation in return for the exclusive availability of power to the Tamil Nadu grid from the second thermal station, as in the case of the first.

The State Government is aggrieved that of the 19,666 mw additional capacity targeted for the Sixth Plan (1980-85) for the entire country, the target for Tamil Nadu is only a meagre 230 mw, excluding the Kadambarai project. The State's original proposals were for the addition of 1,160 mw in the state sector.

TRIPURA

Starved of power

From OUR CORRESPONDENT

AGARTALA

TRIPURA state is situated in the south-west corner of North-eastern region and covers an area of over 10,000 square kilometres. Tripura's economic salvation lies in quick industrialisation but the main pillar of the infrastructure for industries is absent—the power. The other important element is the communication system and that is also not encouraging at all.

During the rule of Maharaja of Tripura there was a small diesel unit to provide electricity to Agartala, the seat of the Maharaja. After merger of Tripura with India, after about six years, the private concern of power supply was taken over by the government. In the first five-year plan the power supply was increased from 280 kw to 490 kw. During the second plan period, power generation went up to 1,053 kw. The power was then supplied to thirteen localities including all the subdivisional towns. At that time Tripura was one district union territory.

The wide gap between the demand and the supply continued in domestic sector, let alone industrial sector. In such a situation, the administration approached the government of the composite state of Assam for purchase of power from Umium hydroelectric project. This scheme was implemented in four phases. Power supply from Assam-Meghalaya grid (Umium falling in Meghalaya) to Tripura is continuing. At present 4 to 5 megawatt of power comes to Tripura from this grid. But the problem remains in the sense that whenever there is a problem in that state, Tripura's power supply system suffers. If the Assam grid is disturbed, then there is load-shedding. Even then the gap between the need and supply has been steadily growing.

The State Government then took up the Gumti hydel power project in South district of the State. The project is being completed. Now the third phase is under construction. However, this project is meeting major need of power of the state. At present Gumti project supplies 8.5 megawatt. But Tripura's requirement now is 16 megawatt.

The State has a diesel set for generating 1.50 mw kept in reserve for using in emergency like—sudden snapping of Assam supply. The demand of the state-owned jute mill is met for all its shifts.

agreed formula. There is no other bulk consuming industry in the State. When the third phase of the Gumti project is completed, the situation is expected to stabilise further.

Gas-based station

With prospects of availability of gas in Tripura, the State Government has proposed to the Central Government that a gas-based thermal project be set up in the State to generate 5 megawatts. The project will cost Rs 4.75 crores. A project report has already been submitted to the Centre and Tripura government has also invited global tenders for this project. The Oil and Natural Gas Commission has been requested to supply 40,000 cubic metres of gas daily for this project. It appears that the ONGC is in a position to do so. The scheme is likely to be implemented. The fund has to be provided by the centre for the project.

As against 7.8 megawatt of power in 1977, Tripura has now 14 megawatt. The revenue from power has also gone up to Rs 130 lakhs as against Rs 62.50 lakhs in 1977. However, the Marxist government has raised the power tariff in an arbitrary way causing harm to industrial growth. There is the flat rate of 80 paise per unit and there is no separate industrial tariff as in other areas. Even for domestic consumers, in a state like Tripura this tariff is exorbitant. The tea industry has been complaining that it is adversely affecting the industry which is also otherwise not in a prosperous position. There are now 31,700 consumers. The length of the transmission line is 29,440 kilometres.

In agricultural sector 550 pumpsets used for irrigation purposes have been provided with power. Out of 4,272 villages, 25 per cent have already been electrified. Another 250 villages have been taken up. By the end of the Sixth Plan 40 per cent of the villages will have power supply.

Solar energy

In Northeastern region Tripura is the first state to start experiment with solar energy. Two pumpsets for irrigation purposes have been working with solar energy. Ten more are being set up. The Centre and the Northeastern Council have provided funds of Rs 9 lakhs for installing the pumpsets and experimenting with solar energy. The result is encouraging.

According to a moderate estimate

be 23 megawatt. Under the Sixth Plan period, the state has been allotted a small amount of Rs 23 crores. Tripura government is also pinning its hope on timely completion of Loktak Project, Kopili and Bomgaigaon projects in Manipur, Assam-Meghalaya and Assam respectively for generation of 260 megawatt of power by early part of 1983. Nonetheless, there is a strong feeling that in order to build up this border state into a viable unit the Centre should put through an accelerated programme for increasing the power generation of this state. Abundant power is required to set up industries based on local materials like bamboos, timber, etc. There is a proposal to set up a paper mill based on bamboos. At present bamboos and timber are being smuggled to Bangladesh by river.

Tamil Nadu: Grim struggle for self-sufficiency

Concluded from page 268

The State has a potential for 10 per cent annual growth in the power sector, at least during the Sixth Plan period and therefore needs 250 mw to 300 mw firm capacity additions every year.

Atomic power project

The State is eagerly expecting the commissioning of the atomic power project at Kalpakkam with 2 units of 235 mw each. The first unit is expected to be ready next year and the second a year thereafter. The second thermal power station at Neyveli is under construction. The first 210 mw unit is targeted for 1984-85. The State Government is pressing the Centre to establish a second atomic power plant at Kadankulam in Tirunelveli district. The site is reported to have been chosen by the Department of Atomic Energy.

The power position in Tamil Nadu will register a definite improvement only in the mid eighties, when schemes like Tuticorin thermal extension, Mettur thermal extension and a second thermal station at Neyveli are completed. Till then the power position has to be managed by maximisation of generation at the existing hydel and thermal stations.

UTTAR PRADESH

Continuing shortage

From OUR CORRESPONDENT

LUCKNOW

UTTAR Pradesh has been fighting a dogged battle against continuing power famine. The State is facing a power shortage of about 500 mw. Total availability of power is much too short of assessed demand. The gap between demand and supply is bound to continue during the Sixth Plan period (1980-85) as illustrated in Table 1.

Unlike many other sources of energy, electricity is a determinant of economic growth and has proved to be a basic infrastructure for the all round development of any area. UP—the most populous state in the country, has, according to the 1981 Census, a population of 11.09 crores which is 16.2 per cent of the country's population of 68.38 crores. The State has been divided into five economic regions by grouping the contiguous districts having, more or less, similar geographical and agro-climatic conditions, economic activity patterns and density of population. These regions are: Eastern, Bundelkhand, Hills, Central and Western. The first three are known for their backwardness. The hill region besides its backwardness is also sensitive because of its peculiar topography. Of the total population of the State, 4.3 per cent or 48.15 lakh people reside in hills.

Planwise additions

At the time of independence, UP had an installed capacity of 157 mw. Before the start of the planning era, the State had an installed capacity of 178.54 mw which increased to 370.15 mw at the end of Second Plan. Thereafter, the importance of electricity as a powerful vehicle for progress and prosperity of this backward state was realised. The UP State Electricity Board was created in 1959 to carry on the programme of power development on a large scale. Concerted efforts were made to accelerate the capacity of power generation and 539.97 mw was added during the Third Plan.

During the Three Annual Plans (1966-69) a net capacity of 399.89 mw, including 125 mw from Renu-sagar, was created. During the

mw was added bringing the total installed capacity to 1,673.74 mw. The additions during the period 1974-79 were almost as much as the total installed capacity up to the commencement of that period and, another 1,518 mw capacity was created. By the commissioning of another unit at Obra, another 200 mw was added during 1979-80, bringing the total installed capacity of the State at the commencement of the Sixth Plan to 3,378.95 mw.

Table 2 gives planwise details of additions in the installed capacity.

At present, the State has a total capacity of 3,913 mw of which 744 mw was added to the state grid during the past two and a half years. Despite this tremendous increase in its installed capacity the State has been facing continuous shortage of electricity over the decade. This shows that electricity is no more a luxury as, perhaps, it was in 1951, but has become a life line for the State.

Declining share

During 1951 the electricity generation in UP was only 570 Gwh which was 9.7 per cent of the total electricity generation in the country. The generation in 1960-61 in the State in-

creased by 120 per cent, it being 1,25 Gwh. The percentage increase in generation at the national level during 1968-69 over 1960-61 was 180 per cent whereas the step-up at the state level was 325 per cent. Since then declining trend has been observed. The State's contribution in the country's generation which was 11.2 per cent in 1968-69 came down to 9.7 per cent in 1979-80 — to the level of pre-Plan period.

The aggregate load factor during 1975-76 was 62.9 per cent under the units controlled by the state electricity board. This was, perhaps, the highest recorded factor in the recent past. Thereafter, it started tumbling down. It came down to 48.3 per cent in 1976-77, 40.1 per cent in 1977-78, 39 per cent in 1978-79, 37.7 per cent in 1979-80 and 37 per cent in 1980-81. Following concerted efforts made under instruction of the former Chief Minister, Mr Vishwanath Prasad Singh, the declining trend has been checked to an extent and there has been an appreciable recovery during 1981-82.

Besides the plant load factor, the increase in the auxiliary consumption has been a distressing factor. The auxiliary consumption generally taken at 9 per cent has been recorded

Table 1 : Demand and supply of power during Sixth Five Year Plan

Year	Peaking capacity (mw)			Power Supply (mkwh)		
	Demand	Availability	Shortage	Demand	Availability	Shortage
1980-81	3000	2485	515	15562	10469	5093
1981-82	3400	2394	1006	17586	12783	4803
1984-85	4750	3365	1385	24500	21393	3107

Source : Sixth Five Year Plan (1980-85) and Annual Plan (1981-82)

Table 2 : Installed capacity added in various Plans

Period ending	Additions during the plan period	Cumulative at the end of Plan period
Pre-Plan	—	178.54
First Plan	109.33	287.87
Second Plan	82.28	370.15
Third Plan	539.97	910.12
Three Annual Plans (1966-69) :		
Fourth Plan	438.99	1310.01
Fifth Plan	437.25	1673.74
1974-78	1318.00	2982.35
1978-79	200.00	3186.05

as 10.8 per cent in 1977-78, 11.5 per cent in 1978-79, 11.6 per cent in 1979-80 and 12.9 per cent in 1980-81. This has been affecting the availability at bus-bar. Another factor that has been affecting the consumers is system losses. The highest system losses of 28.17 per cent was recorded in 1973-74. Happily, this has been brought down to 15.8 per cent in 1980-81 and efforts to reduce it further are continuing.

Backwardness

It has been recognised that the State's backwardness is linked with the lower consumption of power. The per capita consumption of power in UP in 1956 was only 8.72 kwh as against an all-India average of 26.40 kwh. It rose to 53.80 kwh in 1969-70 and 86.97 kwh in 1979-80 as against the all-India averages of 83.59 kwh and 130.5 kwh, respectively. It shows that the per capita consumption of power which was 33 per cent of the all-India average in 1956 was doubled in 1979-80. This, however, does not give a true picture unless disparities in per capita consumption of power are looked into. For instance, the per capita consumption was highest in Punjab (314.06 kwh), followed by Gujarat (242.50 kwh), Maharashtra (226.37 kwh), Haryana (201.71 kwh), Tamil Nadu (181.03 kwh), Karnataka (146.35 kwh), Orissa (109.71 kwh) and Rajasthan (101.46 kwh). The State's backwardness can be removed to an extent if adequate and stable supply of electricity is ensured to maximise the utilisation of existing capacities under various fields as well as to accelerate the pace of rapid industrialisation and open new avenues.

Transmission is equally important to evaluate power generated effectively and to operate it as an integrated system, providing reliability of supply with minimum losses and maximum operating efficiency. In the beginning the transmission in the State had only 66 kv and below lines. Lines of 132 kv were introduced during the First Five Year Plan, 220 kv lines came into being during the three annual ad-hoc plans (1966-69).

With the increase in load, UP was the first state in the country to strengthen its system by introducing 400 kv lines in 1977-78. It is well known that UP has done pioneering work in developing transmission systems in the country. At present the State is engaged in developing a sys-

Rural areas

Eighty-six per cent of the State's population lives in rural area. In order to provide benefits of electricity to this majority of people a separate programme of rural electrification is being implemented. The main activities of this programme relate to the electrification of villages, Harijan bastis and energisation of pump sets—the last being the most important because of its linkage with production in agriculture, wherein 78 per cent of the working force is engaged.

In the country there are 5,75,936 villages of which 1,12,561 or 19.5 per cent are located in Uttar Pradesh. Of the total villages of the State, 13.3 per cent are in the hills. Up to the end of 1979-80, 38,577 villages or 34.3 per cent of the total villages in the State had been electrified as against the all-India percentage of 43.4 except Assam, Bihar, West Bengal, and Madhya Pradesh, all states were ahead of UP. Apparently, it seems to be discouraging, but taking into account the absolute number of villages electrified in each State, UP's position can be called satisfactory, if not better than many of the states in the country.

In the hills, the electrified villages at the end of 1979-80 were 3,610, accounting for 9.4 per cent of the total electrified villages in the State. During 1980-81, 3,795 villages, the highest ever were electrified in the State, of which 488 or 12 per cent were in the hills. During 1981-82, the record of the previous year was broken, when 5,153 villages including 819 (15.9 per cent) in the hills were electrified. Thus, at the end of 1981-82, 47,525 villages which constitute 42.2 per cent of the total villages have been electrified. In the hills, the number of electrified villages at the end of 1981-82 had reached 4,897 which is 32.6 per cent of the villages located there and 10.3 per cent of the total electrified villages. Out of the 47,525 electrified villages,

21,157 or 44.5 per cent have been provided with L. T mains. This percentage in the hills is 97.7.

Harijan bastis

By the end of 1979-80, 14,014 Harijan bastis were electrified of which 1,492 or 10.6 per cent were located in the hills. In the past two years, 4,794 more bastis have been electrified, bringing the total to 18,808. In the hills, 940 Harijan bastis were electrified during the past two years, which is 19.6 per cent of the bastis electrified in the State. The total number of bastis electrified in Hills district at the end of 1981-82 was 2,432—12.9 per cent of the total electrified bastis of the State.

In UP, 3,44,135 private pump sets were electrified up to the end of 1979-80. In the hills there is no scope for tube wells. However, mainly in Terai areas 3,241 pump sets were energised. During the last two years, 70,808 pumps sets were energised of which 817 were in Hills. Thus, at the end of 1981-82, there were 4,14,943 electrified pump sets which include 4060 in Hills.

Besides these three main activities, domestic, commercial, industrial and street lighting is also provided through the rural electrification programme.

Continuous investment

For improvements in power development continuous investment is required because completion of a thermal project requires a period of six to seven years, while ten to twelve years are required for completion of a hydro-electric project. For the power sector, an outlay of Rs 2,153 crores has been approved for the Sixth Plan period.

The approved outlay of Rs 2,153 crores will be utilised in execution of the following programmes and about 28 per cent of this amount is likely to be utilised during the first two years of the current Plan period:

Table 3 : Sixth Five Year Plan : Outlay and expenditure

(Rupees in crores)

Programme	1980-81		1981-82	1980-85
	Approved Outlay	Anticipated expenditure	Outlay	Outlay
Generation	175.35	159.39	222.62	1289.66
Transmission and Distribution	92.00	83.62	97.38	640.00
Rural electrification	32.00	31.98	30.00	212.44
Others	2.00	0.90	1.35	10.90
Total	301.35	275.89	351.35	2153.00

In the past, plants of lower capacity were installed to generally meet the local requirements of selected areas. With the passage of time and with improvement in technology, higher capacity plants were installed, the latest being 200 mw at Obra in Mirzapur district. At present projects of Parichha TPS (2x110 kw), Tanda TPS (4x110 mw), Anpara TPS (3x210 mw), Unchahar TPS (2x210 mw), Tehri Dam Multi-purpose Project (4x250 mw), Lakhwar

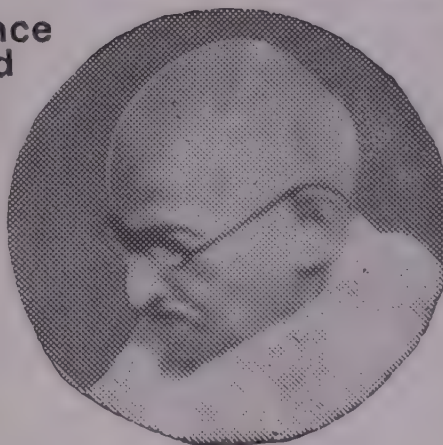
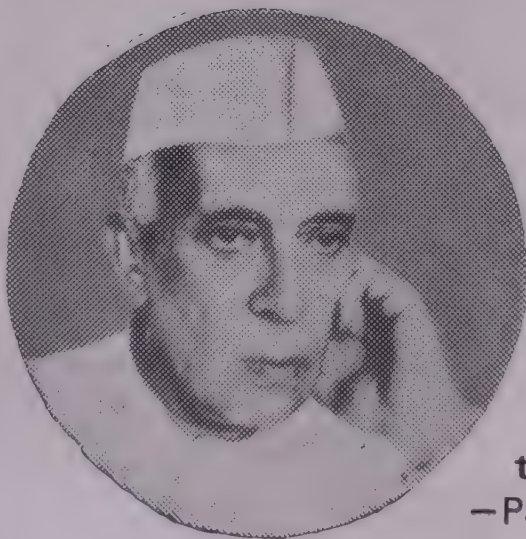
Vyasi Multi-purpose Project (3x100 4x30 mw), Yumuna II, Part II HES (4x30 mw), Maneri Bhali HES (3x30 mw), Maneri Bhali HES, Part II (4x64 mw), Vishnu Prayag (4x65.5 mw) and Khara HES (3x27 mw) are being implemented. For Anpara 'A' credit agreement with Kuwait Fund was executed in 1981.

In order to keep pace with the growth in demand it has become imperative to go in for still higher

capacity plants. Therefore, 500 mw sets are being installed at Singrauli from which UP will be benefited. Sets of similar capacity have also been envisaged under Anpara 'B' and 'C' under State sector and Rihand Super Thermal under the Central sector. The capital investment of these power houses is so high that it is difficult to implement them along with the continuing projects from the State's normal resources.

CALL OF FREEDOM

Freedom and Independence
can be preserved
'best with hard work.
— Mahatma Gandhi



There is no resting for any one
of us till we redeem our pledge
in full, till we make all the people
of India what destiny intended
them to be.

— Pandit Jawaharlal Nehru

Freedom for a nation, as for
an individual, is the
opportunity to develop and
to express its personality to
the fullest extent.
The freedom implies hard
work in all directions.

— Prime Minister
Smt. Indira Gandhi



**MAHARASHTRA IS
DETERMINED TO
REDEEM THE PLEDGE**

WEST BENGAL

Critical situation

from OUR CORRESPONDENT

CALCUTTA

THE power crisis in West Bengal has been so chronic that few people expect the most optimistic dare foresee an end. That West Bengal will ever be self-sufficient in power is certainly what people cannot imagine. In fact, the situation seems to be moving from bad to worse. At the time of writing, West Bengal is reeling under a critical turn of the power crisis leading to a 50 per cent night power cut in non-priority industries. Worse things, of course, have happened before when industries had to be shut down for a whole week due to lack of power but there was less despondency then.

The eastern region as a whole shares West Bengal's fate. The gap between supply and demand of electricity amounted to 23 per cent in 1979-80 and increased to 24.8 per cent in 1980-81. The deficit was the widest in any region in the country. For example, in the northern region, the deficit decreased to 13.4 per cent in 1980-81 from 16.3 per cent in 1979-80. In the western region, the gap narrowed to 11.6 per cent from 14.5 per cent. In the southern region, the improvement was spectacular, the deficit falling quite sharply to 5.2 per cent from 13.4 per cent in the previous year. And the all India power shortage amounted to only 12.6 per cent of the total demand in 1980-81 as against 16.1 per cent in 1979-80.

Thus the eastern region was really worse off and West Bengal particularly so. The major reason for this was the gross neglect of power development in the past. The growth of capacity expansion in the region was achieved at a slower pace than in others, particularly after 1951. Before that, the eastern region was well ahead. The table below shows the installed capacity in the different regions of the country between 1951 and 1980.

Frequent breakdowns

Among the eastern states of West Bengal, Bihar, Orissa and Assam, West

Bengal has been in a particularly bad position. On paper, the installed capacity today is higher than, say, three years ago, but in actual practice, the breakdowns are so frequent that on any day of the year the deficit remains around 100 mw in the southern half of West Bengal, that is the industrialised half of the State. These disruptions are caused by such factors as tube leakages, breakdown of machinery, fittings, etc. The plants go out of commission including the new ones at Bandel and Santaldih all too frequently, thereby aggravating the power shortage. Proper maintenance has never been a strong point with the power administration in West Bengal, nor has there been an effective system of preventive maintenance. Consequently, when breakdowns occur, it often takes a long time to repair the machines and bring the plant back to normal.

The time taken for overhauling of boilers also is unusually long. According to an expert, the normal time for overhauling a boiler should be a maximum of 45 days; in West Bengal it often takes as long as four months. Proper schedules are never drawn up for overhauling of boilers and turbines. Therefore, it has not been possible to have a system of planned shutdowns of units, to complete annual maintenance of boilers within 30 days, and to repair tube leakages etc. quickly.

Expert committees, of course, have laid down norms for the maintenance of boilers and turbo generators, but these have never been followed in practice. Non-availability of spares and poor planning of repair work have naturally been the main causes for the unsatisfactory performance of the power stations.

No management training programmes

A study of the power problems in West Bengal by a local chamber of commerce has brought out the fact that there

is as yet no adequate training programme for management and operating personnel. There appears to be no proper system of manpower planning. The lack of trained personnel results in inefficient operations and frequent breakdowns. The authors of the study feel that in addition to power generating boards themselves introducing adequate training programmes, there is also a need for a centralised system of providing service for all boards, including provision of training facilities and research-based scientific and technical services.

It is a matter of some wonder that the Power Ministry of the State and the generating agencies themselves have not felt the need for manpower planning or training. In view of the proposed expansions of existing capacity prompt attention should be given to these vital matters of personnel.

The following are the schemes for additions to capacity in West Bengal during the Sixth Plan:

Santaldih IV Unit	120	mw
Bandel V Unit	210	mw
Kolaghat 1st Phase	630	mw
DPL VI Unit	110	mw
Jaldhaka Hydro-Stage II	8	mw
Ramman Hydro	50	mw
CESC-Tagagarh Expansion Scheme	240	1368 mw

The existing installed capacity in the State is as follows:

	Thermal mw	Hydel mw
CESC	320	
Bandel	320	
DPL	280	
Santaldih	480	
Others	128	
Small Stations		33
Lower Lagayp	—	12
		2573

After the Sixth Plan schemes are all completed, the total installed capacity for power generations in the State will come to 2,942 mw. Even then there will be a power gap of around 1,000 mw in this State. The prospect is frightening and calls for immediate action on the part of the authorities at the central as well as state levels, to take up new big projects that would bring supply closer

	31-12-1951	31-12-1971	31-3-1980	Percent increase during the period
	mw	mw	mw	mw
Eastern Region	598.1	2226.9	4865.7	713
Western Region	520.4	3753.3	7834.3	1406
Northern Region	346.4	3418.6	8248.2	2284
		3999.7	7207.1	1896

to demand. The super thermal power station at Farakka which is being set up with the help of the World Bank is unlikely to go into production in the next three to four years. More additions to existing plants could increase power generation capacity more quickly in the short term.

Transmission losses high

Transmission losses still continue to be around 20 per cent despite the numerous steps taken by the authorities. Experts suggest that more effective steps should be taken to reduce transmission losses through adequate improvements to the transmission system, enhancement of grid facilities, optimum use of trans-

formers and installation of capacitors by industrial consumers.

The power shortage in West Bengal is still around 22 per cent of the total demand. Though it is better than Bihar's 35 per cent, still it is much greater than the national average.

A good deal of the deficit has been made up by captive power facilities such as generator sets, but these are so costly to maintain that industrial costs have moved up wherever an extensive use of such facilities has been made. According to one estimate, at least 30 to 35 per cent of power requirements of West Bengal's industrial units are met by captive power facilities.

West Bengal is a highly industrialis-

ed state. Industries such as jute, cotton engineering, both light and heavy, and host of others can survive and grow only with adequate availability of power. The stagnation on the industrial front that witnesses here is largely on account of the unsatisfactory power situation. Since industrial stagnation is being reflected in growing unemployment and its undesirable social consequences, the West Bengal Government is extremely worried about the power situation, but handicapped as it is by lack of sufficient financial resources, there is nothing it can do about it except to concentrate on making the power plants work as efficiently as possible. Here its experience has been most exasperating, and largely frustrating.

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Union Territories

From OUR CORRESPONDENTS

ANDAMANS

Accent on rural electrification

PORT BLAIR

THERE are fifteen power houses in various islands, including Port Blair (headquarters) with an installed capacity of 8,763 kw. Under the rural electrification scheme, electricity is being provided to the villages and developing small scale industries. In addition to the maintenance of power houses, the transmission and distribution system, 27 schemes are being implemented under the Plan. Out of 27 schemes, 16 are continuing and 11 are new schemes.

In the Annual Plan 1982-83, Rs 200.00 lakhs have been sanctioned by the Government of India, out of which Rs 90 lakhs have been allocated for a coal based thermal power station of 2x5 mw capacity and Rs 110 lakhs for various schemes at different islands, including the augmentation of generating capacity during 1982-83.

As per the programme, diesel generating sets are to be installed and commissioned at different power stations in different islands during 1982-83. Further three more diesel generation sets for three more islands are being procured. Out of 390 villages, 153 villages have already been electrified which covers a population of 96,239. As per the 1971 census, this constitutes 84 per cent of the total population.

A total number of 230 villages will be electrified by the end of the Sixth Five Year Plan. The target for electrification during 1982-83 is 35 villages, including the tribal area, out of which seven villages have been electrified as of June 30, 1982. The remaining 28 villages are expected to be electrified within this financial year.

Upto March 1982, 98 km of 35 kv high tension lines, 274.80 km of 11 kv high tension lines and 611.62 km of low tension lines have been drawn. Round the clock electricity supply will be provided to a few

villages by extending 11 kv lines in middle Andaman. Also a 10 mw thermal power station in south Andaman will be installed. Preliminary works viz, soil testing, sea water testing and other related investigations are being carried out.

ARUNACHAL PRADESH

Good scope for hydro power development

ITANAGAR

THIS mountainous union territory, formerly known as the North East Frontier Agency (NEFA), and lying in the extreme north-eastern part of India, has an area of 83.7 thousand sq km and a population of about six lakhs.

The rivers flowing through the Territory provide good hydro-power potential because of the hilly terrain. According to a survey conducted by the Central Water Commission, Arunachal Pradesh has a potential for generating 20,000 mw of hydro power. However, the utilisation of the potential is very insignificant. The generation and distribution of power in Arunachal Pradesh is handled by the Electricity Department. At the end of March 1982, the installed power generation capacity was only 10.77 mw of which 8.37 mw was hydro and 2.40 mw diesel. There is no major power station in the Territory. All the power installations are of small size.

Because of the industrial backwardness, the requirement of power in the Territory is very low. The Eleventh Annual Power Survey Committee has estimated that the power requirement in Arunachal Pradesh would go up from 9.3 million kwh in 1978-79 to 24.1 million kwh by 1983-84. The per capita power consumption in the territory was only 13 kwh in 1979-80 as against 134 kwh for all-India. The per capita consumption for domestic and industrial purposes was also insignificant at 5 kwh and 3 kwh respectively.

In 1981 the Planning Commission approved the Rs 72-lakh Yambund Nallah micro hydel project for the Territory. On completion, the project would generate 7.9 million units of power.

The North Eastern Council (NEC) has embarked upon the setting up of the 80-mw Kameng hydel project near Bomdila. The NEC has also entrusted to the North Eastern Electric Power Corporation the work of preparation of project reports for three other hydel projects in the Territory.

As regards rural electrification, Arunachal Pradesh has not made much progress. Out of the total 2,973 villages, only 331 villages or 11.1 per cent were electrified as at the end of June 1981 as against 47.7 per cent for the country as a whole. The electrified villages in the Territory covered less than one fourth of the Territory's rural population.

CHANDIGARH

Third highest per capita use

CHANDIGARH

BESIDES being a union territory, the city of Chandigarh is the joint capital of Punjab and Haryana Governments. The character of the Territory is more of an administrative nature. It has an area of about one thousand sq km and a population of about five lakhs.

Chandigarh has practically no source of power generation of its own except for the diesel generating sets whose total installed capacity at the end of March 1982 was only two mw. Even this capacity is sort of a standby arrangement in the case of major shutdowns. All the power requirements of the territory are met from the Bhakra complex where it has 3.5 per cent share in power generation. Because of this dependence, whenever there is a fall in generation at the Bhakra complex, the Territory faces the power shortage. In recent years, there has been shortage in the availability of power when compared with the requirement. In 1979-80 the shortage was

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Requirement and availability of power in Chandigarh

	1979-80	1980-81	1981-82
Requirement (Million kwh)	218	228	256
Availability (Million kwh)	213	231	240
Deficit (-)/Surplus (+)			
(i) Million kwh	-5	+3	-16
(ii) As per cent of requirement	-2.3	+1.3	-6.2

3 per cent, and in 1981-82 6.2 per cent. In 1980-81 it had a surplus of 3 per cent. The requirement and availability of power for these years are given in the table above.

The Eleventh Annual Power Survey Committee has estimated that the power requirement in Chandigarh was likely to go up to 28 million kwh by 1983-84.

The per capita power consumption in Chandigarh during 1979-80 326 kwh was the third highest in the country after Delhi (384 kwh) and Punjab (328 kwh). The corresponding all-India figure was 134 kwh. However, the per capita industrial consumption and domestic consumption in the Territory were the highest in the country at 176 kwh and 106 kwh respectively.

As regards rural electrification, all the 26 villages in the territory have been electrified.

DADRA NAGAR HAVELI

Power for majority of villages

SILVASSA

SITUATED on the northern offshoots of Sahyadri range, the union territory of Dadra and Nagar Haveli consists of two pockets, one of Dadra and another of Nagar Haveli, separated by a small area of Kalsad district of Gujarat. The entire union territory is rural and its population is predominantly tribal. It has an area of about 500 sq km and a population of one lakh. The territory has remained backward partly because of the Adivasi population and partly because of its meagre resource potential.

On the power front, the territory has no sources of its own and gets its power supply from Gujarat Electricity Board. The power requirements are also very limited. There is only a power sub-station at Amri village with a capacity of 66 kw. During 1979-80, Dadra and Nagar Haveli received 6.36 million kwh of

power from other states of which 4.63 million kwh was sold to ultimate consumers. The unaccounted power and that lost in transformation/transmission was 1.73 million kwh which accounted for over 27 per cent of the total available power.

The per capita power consumption in the territory was only 13 kwh in 1979-80 as against 134 kwh for the country as a whole. The per capita consumption for industrial purposes was 38 kwh, for domestic purposes 8 kwh and for agricultural purposes 4 kwh.

The territory has, however, achieved significant progress in rural electrification. Out of 72 villages, electricity has reached to 56 villages or 77.8 per cent as at the end of June 1981. Plans are in progress to cover all the villages under the programme. These electrified villages covered 85 per cent of the total population. The number of agricultural pumpsets energised as on June 30, 1981 was 238.

DELHI

Shortage amidst plenty

DELHI

THE union territory of Delhi has an area of 1.5 thousand sq km and a population of 62 lakhs.

In respect of availability of power Delhi is well placed in the sense that it was surplus in power for the last two years and continued to be so in the first three months of 1982-83. However, the power system in Delhi presents a paradoxical picture of shortage amidst plenty. Frequent break-downs in the power

system are the result of inadequate management. Of late, large pockets in the territory are seen without power for some time or the other during the day.

The only source of power generation is thermal. The power programmes in the territory are being executed mainly by the Delhi Electric Supply Undertaking (DESU) which is a statutory body of Municipal Corporation of Delhi. It is responsible for generation, transmission and distribution of electricity in the territory. It also supplies bulk power to New Delhi Municipal Committee, Military Engineering Services and Delhi Cantonment Board for distribution in the area under their control.

At the end of March 1982 the DESU had an installed power capacity of 310.5 mw (282.5 mw from Indraprastha thermal power station and 28 mw from Rajghat power station). Besides, the Badarpur thermal power station in the central sector, which is managed by National Thermal Power Corporation Ltd, has an installed capacity of 720 mw. Thus, the total capacity available for Delhi comes to 1,030.5 mw. In addition, Delhi gets power supply from the Rohtak Road Grid sub-station of Bhakra Management Board.

The power generation, requirement and availability in Delhi for the last three years is shown in Table 1.

It would be seen from Table 1 that Delhi had surplus power in 1980-81 and 1981-82. Even during the first three months (April-June) of 1982-83 the requirement of power in Delhi was 884.71 million kwh and the availability 1,194.06 million kwh leaving a surplus of 299.35 million kwh or 33.8 per cent of the requirement. Yet, the territory is witnessing not only load-sheddings on a large scale but even black-outs. The unsatisfactory power supply to consumers was mainly because of the shortcomings in the distribution system. The Union Energy Ministry has set up a five-member task force under the chairmanship of Mr L. C. Jain, Member, Central Electricity Authority, to implement short-term

Generation, requirement and availability of power in Delhi: 1979-80 to 1981-82

	1979-80	1980-81	1981-82
Power generation (Million kwh)	3,364	3,676	3,643
Requirement (Million kwh)	2,611	2,744	3,110
Availability (Million kwh)	2,476	2,728	3,182
Deficit (-)/Surplus (+)			
(i) Million kwh	-135	+38	+92
(ii) As per cent of requirement	-5.2	+1.4	+2.3

today, with 10 crore members, the cooperative sector benefits more than half of the nation's population

With increased marketing of farm-produce, cooperatives are trying to ensure a remunerative price to the producer, eliminating the middlemen, who corner the bulk of profits for themselves. The supply of agricultural inputs and other essential consumer commodities by village co-operatives at fair prices at the door-steps of the farmers is a boon to them.

NDC has played a pivotal role in uplifting the weaker sections during the last few years, particularly the fishermen, handloom weavers and tribals. The Corporation has been speeding up its programmes to provide financial and technical assistance to the farmers, in diverse fields from agro-processing to distribution of fertilisers, from marketing of agricultural crops to promoting giants like IFFCO, NAFED and NHFC. Already in operation are plans to set up a rural growth centre in every village. At this centre "under one roof" the farmers would be able to secure all their farm requirements, buy

essential consumer items, availability of credit facilities and also sell their agricultural produce.

NCDC has, so far, invested Rs. 425 crore in cooperatives.

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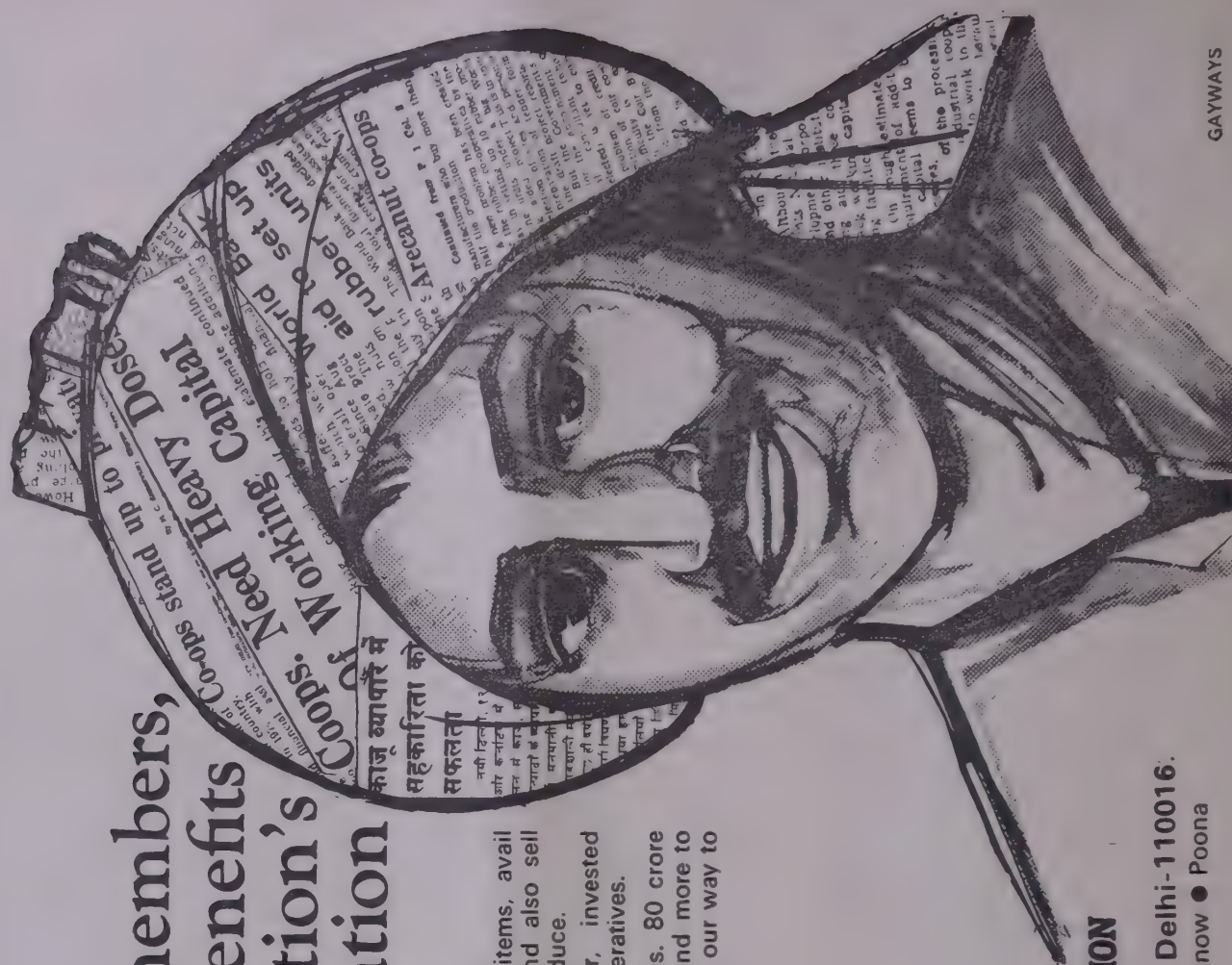
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GAYWAYS

and long-term measures to restore interrupted power supply to Delhi. The Union Energy Minister, Mr. B. A. Ghani Khan Choudhary, has asked the DESU to ensure cent per cent consumer satisfaction through appropriate measure.

With a view to augmenting the installed power capacity in Delhi, the Union Energy Ministry recently cleared the proposal to set up a 1,000 mw super thermal power station at Delhi. A committee of experts under the chairmanship of Mr A. K. Shah, chairman, National Thermal Power Corporation, has already been set up to go into the details of the project, including the selection of the site.

The Eleventh Annual Power Survey Committee has estimated that the requirement of power in Delhi was expected to go up to 3,645 million kwh by 1983-84. This means a rise of 17.2 per cent over that in 1981-82.

Delhi had the distinction of having the highest per capita power consumption of 384 kwh in the country in 1979-80. The corresponding all-India figure was only 134 kwh. The per capita consumption for industrial purposes stood at 133 kwh and for domestic purposes at 106 kwh. As regards rural electrification, all the 243 villages in the Territory have been electrified. The number of agricultural pumpsets energised stood at 12,254 at the end of June 1981.

GOA, DAMAN & DIU

Hydro potential to be tapped

PANAJI

THE union territory of Goa, Daman and Diu consists of three mutually disjointed land blocks situated on the West coast, each separated by a distance of about 500 km. Daman is a coastal enclave in the Valsad district of Gujarat, while Diu is a tiny island along the southern coast of the Saurashtra (Gujarat) region. Goa lies sandwiched between the States of Maharashtra and

Karnataka. The territory has an area of 3,814 sq km and a population of 10.82 lakhs.

Despite the growing industrialisation of the territory, it has to depend entirely on other states for its power requirements as it has no power stations. While all of Goa's power requirements are met from the neighbouring states of Karnataka and Maharashtra, the requirements of Daman and Diu are met by Gujarat. Because of the dependence on other states for power, any shortfall or break-down in the power systems of these states has an immediate and telling effect on the availability of power for the territory. This leaves no option for the territory but to resort to imposition of power cuts on consumers. The requirement and availability of power in the territory for the last three years is shown Table 1. It would be seen from the table that the territory faced power shortage of 24.4 per cent in 1979-80, 13.6 per cent in 1980-81 and as much as 32.6 per cent in 1981-82.

The Eleventh Annual Power Survey Committee has estimated that the power requirement of the territory was expected to go up to 539 million kwh in 1982-83 and further to 576 million kwh by 1983-84.

The per capita power consumption in the territory during 1979-80 at 207 kwh was much higher than that of 134 kwh for the country as a whole. The per capita power consumption for industrial purposes in Goa was also higher at 127 kwh than the all-India average of 73 kwh.

As regards rural electrification, out of the total 433 villages in the territory 364 villages or 84 per cent were electrified at the end of June 1981. The number of agricultural pumpsets energised at the end of the same period was 2,102.

The territory's Government has decided to prepare a feasibility report for setting up a thermal generating station and also to explore the possibility of utilising the entire available hydro potential in the territory. The Union Government was reported to have already allocated 200 mw of power to the territory from the super thermal power

projects — 100 mw each from Korba (Madhya Pradesh) and Ramagundam (Andhra Pradesh).

LAKSHADWEEP

Plan to expand diesel generation

KAVARATHI

LAKSHADWEEP, a group of small coral islands in the Arabian Sea, lies about 200-400 km off the Kerala coast. Both in terms of area (about 30 sq km) and population (about 4,000) it is the smallest union territory in the Indian Union.

The territory does not have any potential for development of power on a large scale. There are no hydro-power sources. Even thermal power generation is ruled out because of its isolation from the mainland. Thus the only mode of power generation here is diesel generating sets. The generation and distribution of power is done departmentally. At the end of March 1982, Lakshadweep had an installed power capacity of only 1.58 mw—entirely from diesel sets. The power generation in 1979-80 was a meagre 1.10 million kwh, of which the actual power available for use was 1.08 million kwh. Of this available power, 0.92 million kwh was sold to ultimate consumers while 0.16 million kwh was lost in transformation or transmission. This accounted for about 15 per cent of the available power.

The Eleventh Annual Power Survey Committee has estimated that the requirement of power in Lakshadweep was expected to increase from 1.20 million kwh in 1979-80 to 1.98 million kwh by 1983-84.

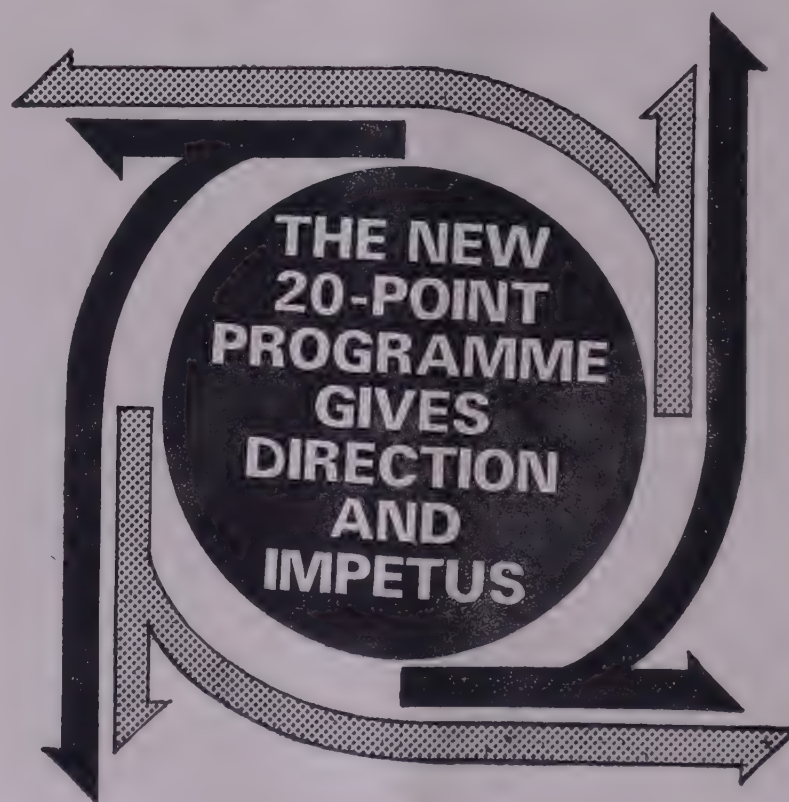
The Planning Commission has approved the scheme for augmenting diesel generation capacity and distribution system of Kalpeni island in the territory. The scheme, estimated to cost Rs 10.18 lakhs, envisages installation of two diesel generating sets each with a capacity of 65 kw.

At the end of June 1981, out of the 10 villages, 9 villages or 90 per cent were electrified. These villages covered about 98 per cent of the population of Lakshadweep.

Table 1 : Requirement and availability of power in Goa, Daman & Diu : 1979-80 to 1981-82

	1979-80	1980-81	1981-82
Requirement (Million kwh)	324	413	475
Availability (Million kwh)	245	357	320
Deficit	79	56	155
(i) Million kwh	24.4	13.6	32.6
(ii) As per cent of requirement			

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—Prime Minister
Smt. Indira Gandhi

36th Year of Independence—Year of the 9th Asian Games.

davp-82/161

The National Institute of Oceanography, Goa has proposed to set up one-mw pilot plant in Lakshadweep to tap energy from the ocean.

MIZORAM

Major hydro electric project in the offing

AIZAWL

FORMERLY Mizo Hills district of Assam, it was given the status of a union territory on January 21, 1972. This mountainous and densely forested union territory has an area of 21.1 thousand sq km and a population of only five lakhs.

In respect of power development the territory is backward. At the end of March 1982 it had an installed power capacity of only 2.89 mw, entirely made up of diesel generating sets. The generation and distribution of power in the territory is done by Mizoram Electricity Department. There are in all seven diesel power generating stations in the territory at Aizawl, Lunglei, Lawngai, Champhai and Hnahthial.

The gross power generation in Mizoram during 1979-80 was only 56 million kwh, of which 1.45 million kwh was actually available for use. In addition, power of 1.63 million kwh was received from other states taking the total availability of power to 3.08 million kwh. Out of this, 2.21 million kwh of power was sold to ultimate consumers while 87 million kwh of power or 28.3 per cent was lost in transformation, transmission and distribution.

The per capita power consumption in Mizoram during 1979-80 was only 9 kwh as against 134 kwh for the country as a whole. The per capita consumption for domestic purpose was 5 kwh and that for industrial purposes only one kwh.

The territory's performance in rural electrification is also dismal. Out of the 229 villages only 38 or 16 per cent were electrified at the end of June 1981. These electrified villages covered barely 28 per cent of the rural population of Mizoram.

There is good scope for the development of hydro power in the terri-

tory and the Mizoram Administration is taking steps in this direction. On May 1, 1982, the foundation stone for the Rs 1-crore Serlui-A micro hydel power house to generate 1,000 kw of electricity was laid. The project is expected to be commissioned by 1983-84. During 1982-83 special emphasis has been given on development of power to make available 10 more mw of power. Investigation of Serlui-B medium hydel project and the construction of 132-kv transmission line from Aizawl to Lunglei have already been taken up.

The investigation work on the first major hydro-electric project of Mizoram—the 160-mw Dhaleshwari project—was inaugurated on January 7, 1982 by the Union Energy Minister, Mr A. B. A. Ghani Khan Choudhury. The project, to be located six km upstream of Bhairabi village on the Dhaleshwari river, has been entrusted to the National Hydroelectric Power Corporation. The project envisages the construction of a 65-metre high earth-cum-rock fill dam to divert the waters of the Dhaleshwari through a head-race

Sl. No.	Item	Unit	Actuals at the end of				Anticipated proposed 82-83
			65-66	73-74	77-78	81-82	
1)	Demand for power	mw	12.5	28.19	29.34	45.00	49.00
2)	Energy purchased	mu	59.94	100.40	129.98	192.94	208.14
3)	Energy sold	mu	50.89	92.92	109.56	165.00	179.00
4)	Revenue (demand)	Rs lakhs	62.14	135.33	278.54	625.90	714.10
5)	Plan expenditure (for plan period)	Rs lakhs	59.88	98.34	101.30	140.30	175.00
6)	H.T. lines	km	258.64	433.83	525.83	588.65	10.00
7)	L.T. lines	km	1072.36	1836.43	2090.93	2376.35	50.00
8)	Transformers erected	Nos.	221.	419	536	653	30
9)	Services	Nos.	16471.	39607	50633	64562	3453
10)	Street lights	Nos.	9412	15568	16524	18353	450
11)	Per capita consumption	Unit	195.40	197.28 (1971 census)	232.61	273.18 (1981 census)	296.36

tunnel, surge shaft and finally through penstocks to the power house. The water flowing out from the power house would be put back into the river through a tail-race tunnel. The investigation work to establish the alignment of construction on the site would take about 18 months and would cost about Rs 95 lakhs. On completion of the project report and the necessary technical and financial approvals, the actual construction work is expected to begin in 1983 and the project would be completed by 1990.

PONDICHERRY

Power only from outside

PONDICHERRY

THE union territory of Pondicherry covers an area of 492 sq kms with a population of 6.04 lakhs as per the 1981 census. All the 334 villages in the union territory have been electrified in the Fourth Plan period itself. All the harijan bastis have also been electrified. There is no power generation in Pondicherry. The power requirements are met by purchasing power in bulk from Tamil Nadu for Pondicherry and Karaikal regions, from Kerala for Mahe regions and from Andhra Pradesh for Yanam region. Further this territory has been assured firm share of power from Neyveli and Ramagundam super thermal power stations to the tune of 65 mw and 50 mw respectively from their ultimate capacities. The salient features of the power development in Pondicherry are listed below:

The cent per cent achievement in electrification of villages of this territory has stimulated developmental activities in all the sectors. To cope up with the ever-growing demand for power and to rationalise and improve the distribution system, this territory has formulated various schemes under Plan, such as availing power in bulk by erecting 230 kv inter-state lines, setting up 110 kv sub-stations in the load centres, strengthening of the distribution system, conversion of overhead lines and services into underground cable system within the town limits etc.

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BHEL is also involved in the Operation and Maintenance of the above Units for a period of four years.

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M/s Kennedy & Donkin of UK are our Consultants for the above contract and the contract has been executed to our satisfaction.

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The services of BHEL have also been utilised by ECT towards various repair works such as refurbishing of Gas Turbine Station Chimneys etc, and the quality of BHEL's work has been commendable.

BHEL's performance has been to our satisfaction and it is hoped that above information would be of assistance in the evaluation of any proposals submitted by Bharat Heavy Electricals Limited, India.

— Electricity Corporation
Tripoli, Libya

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Notification No. Regd. I/P. 138/PC

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Small Scale Industry Units who are not registered with NSIC under their revised scheme of registration (introduced with effect from 1-7-76) will be treated at par with suppliers registered with DGS & D for the purpose of awarding contracts. Small Scale Units may, therefore, apply for registration either to DGS & D or National Small Industries Corporation Limited, Okhla Industrial Estate, New Delhi-20.

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(S. K. MOHANTY)
DEPUTY DIRECTOR (Regn.)
For Director General of Supplies & Disposals.

davp 308 (6) 82

**Jyoti Ltd.**

Industrial Area, Vadodara-390 003 (Gujarat)

NOTICE

1. It is hereby notified for the information of the public that Jyoti Limited proposes to make an application to the Central Government, in the Department of Company Affairs, New Delhi, under sub-section (2) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 for approval for the establishment of a new undertaking for the production, supply and distribution of 80 Nos. of Sizing (Screening) Machines per annum. Other particulars of the proposed new undertaking are as under:

- i. Name of the proposed undertaking : Mogensen Sizers Ltd
- ii. Name(s) of person(s) or authority/authorities proposing to establish the new undertaking : Jyoti Limited
- a) Management structure of the applicant undertaking : The Board of Directors of the applicant undertaking comprises :
 - 1) Mr. Nanubhai B. Amin Chairman & Managing Director
 - 2) Mrs. Savitaben N. Amin Managing Director
 - 3) Mr. Rahul N. Amin Whole-Time Technical Director
 - 4) Dr. Anubhai H. Amin
 - 5) Mr. Natubhai R. Amin
 - 6) Mrs. Mandakini M. Amin
 - 7) Dr. M. N. Srinivas
 - 8) Mr. Fatehsinh N. Rana
 - 9) Mr. P. C. Hathl
 - 10) Mr. R. Srinivasan
- b) Management structure of the proposed undertaking : The proposed undertaking shall be managed by the Board of Directors for the time being as under :
 - 1) Mr. Nanubhai B. Amin Chairman
 - 2) Dr. Fredrik Mogensen
 - 3) Mr. Rahul N. Amin
 - 4) Mr. S. R. Desai
- iii. Capital Structure;
 - a) Applicant undertaking authorised capital

37,50,000 Equity Shares of Rs 10/- each	: 375 "
25,000 Preference Shares of Rs 100/- each	: 25 "
Total	: 400 "
Issued, Subscribed and paid-up capital	
22,50,000 Equity Shares of Rs 10/- each	: 225 "
25,000 Preference Shares of Rs 100/- each	: 25 "
Total	: 250 "
 - b) The proposed undertaking authorised capital

2,50,000 Equity Shares of Rs 10/- each	: 25 "
Issued and paid-up capital	
2,00,000 Equity Shares of Rs 10/- each	: 20 "
- iv. Proposed Location : Vadodara, Gujarat State
- v. Brief outline of the cost of Project, the scheme and source of finance : Brief outline of the estimated Project cost comprising of Land, Building, Plant & Machinery and Technical know-how etc. with respect to the new Project is about Rs 29 lakhs and is proposed to be financed by Equity Capital of Rs 20 lakhs and Loans from the Banks and other Institutions Rs 9 lakhs.

2. Any person interested in the matter may make representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating his interest therein.

Dated :
This 10th day of August 1982.
Registered Office :
Industrial Area,
P. O. Chemical Industries,
Vadodara-390 003.

For JYOTI LIMITED
N. R. Amin
DIRECTOR

NATIONAL ORGANIC CHEMICAL INDUSTRIES LIMITED

Registered Office :

Mafatlal Centre, Nariman Point, Bombay-400 021

NOTICE

It is hereby notified for the information of the public that National Organic Chemical Industries Limited has given to the Central Government, in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion with a view to increasing utilisation of its installed capacity reference Press Note dated 21st April, 1982, issued by Government of India, Ministry of Industry. Brief particulars of the proposal are as under :

- (i) Name(s) of Person(s)/ National Organic Chemical Industries Limited owning the undertaking
- (ii) Capital structure of the applicant undertaking : Authorised, Issued and Paid-up share capital :
Rs. 24 crores divided into 24,00,000 equity shares of Rs. 100 each.
- (iii) Details of the proposed substantial expansion
- (a) Names of new goods to be produced, supplied, controlled or distributed or of new service to be rendered : Not applicable
- (b) In case of substantial expansion of existing activities :

Names of Products	Capacity before expansion (tonnes per annum)	Attainable capacity (tonnes per annum)
Ethylene	60,000	82,800
Benzene	14,000	21,900
Butadiene	7,200	10,000
Polyvinyl Chloride	20,000	30,000

- (c) Location of the project for substantial expansion : Trans Thane Creek Area Thane Belapur Road Thane District Maharashtra

- (d) Brief outline of the project, the scheme and source of finance : Does not arise at present.

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of his interest therein.

For NATIONAL ORGANIC CHEMICAL INDUSTRIES LIMITED

HARSHAD THAKORE
Secretary

Dated this 10th day of August, 1982

Jyoti Ltd.

Industrial Area, Vadodara-390 003 (Gujarat)

NOTICE

1. It is hereby notified for the information of the public that M/s. Jyoti Limited, having its registered office at Industrial Area, P.O. Chemical Industries, Vadodara-390 003, proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for the production, supply, distribution or control of 20 Nos. Pollution Control Equipments per annum and with an annual turnover of Rs 225 lakhs.

Other particulars of the proposed new undertaking are as under :—

- i. Name of the proposed undertaking : Jyoti Limited, Baroda-390 003
- ii. Name(s) of person(s) or authority/authorities proposing to establish the new undertaking : Jyoti Limited, Baroda-390 003
- a) Management structure of the applicant undertaking : The Board of Directors of the applicant undertaking comprises :
- | | |
|---|---------------------------|
| 1) Mr. Nanubhai B. Amin
Chairman & Managing Director | 6) Mrs. Mandakini M. Amin |
| 2) Mrs. Savitaben N. Amin
Managing Director | 7) Dr. M. N. Srinivas |
| 3) Mr. Rahul N. Amin
Whole-Time Technical Director | 8) Mr. Fatehsinh N. Rana |
| 4) Dr. Anubhai H. Amin | 9) Mr. P. C. Hathi |
| 5) Mr. Natubhai R. Amin | 10) Mr. R. Srinivasan |
- b) Management structure of the proposed undertaking : Same as applicant undertaking
- iii. Capital Structure :

	Rs
a) Applicant undertaking authorised capital	
37,50,000 Equity Shares of Rs 10/- each	: 375 lakhs
25,000 Preference Shares of Rs 100/- each	: 25 "
Total	: 400 "
Issued, Subscribed and paid-up capital	
22,50,000 Equity Shares of Rs 10/- each	: 225 "
25,000 Preference Shares of Rs 100/- each	: 25 "
Total	: 250 "

- b) The proposed undertaking : Same as applicant undertaking.
- iv. Proposed Location : Vadodara, Gujarat State
- v. Brief outline of the cost of Project, the scheme and source of finance : Brief outline of the estimated Project cost comprising of Land, Building Plant & Building and Technical know-how etc with respect to the new Project is about Rs 4 lakhs and the same is proposed to be financed as under :

- a) Loan from Financial Institutions : Rs 32 lakhs
- b) Internal accruals : Rs 10 lakhs

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

Dated :

This 10th day of August, 1982
Registered Office :
Industrial Area,
Post Chemical Industries,
Vadodara-390 003.

For JYOTI LIMITED
N. R. Amin
DIRECTOR

TERS

Coal supplies

SIR, — It has been quite some time that Coal India, the giant public sector organisation, has streamlined and simplified its coal delivery system, as a result which coal is now available almost off-the-shelf. However, it does not necessarily mean that coal is reaching consuming points smoothly, or in the grades consumers need. Many industries still complain that they are getting outside coal which their handling equipment cannot deal with. Supplies quite often fail to conform to specified weights, which may be due to underloading or pilferage in transit. This could mean only one thing: powerful vested interests which have grown entrenched themselves in the coal-belt in a permissive atmosphere are still very much active. The government officials talk so much of putting the Dhanbad in its place, but when it comes to actual performance the shortcomings of official machinery are laid bare. In this situation, can we take the recent arrest of an MLA in Bihar for what is believed to be his close association with the mafia as an indicator of things improving in the official machinery?

Prashwar Prasad
CUTTACK

Improving maritime training

SIR, — The quality of training of Indian nautical officers for merchant navy has to be enhanced urgently. India is to enjoy its rightful place as one of the leading maritime nations in Asia. For this purpose a sizeable investment will have to be made.

A 7-member committee headed by Admiral J. Nanda (Retd) which was appointed by the Ministry of Shipping specially to recommend on training matters in the light of new innovations and sophistication in the modern ships being built in advanced maritime nations, says in its report that "it is most essential that our merchant ships are not only well designed, fuel efficient and provided with modern timing equipment, but also are manned with properly trained and competent officers and sailors. The officers should need to be trained at training establishment, gear instrumentation and well equipped laboratories and manned by highly skilled training staff so that the training is able to match the requirements of manning modern and large ships fitted with machinery of advanced technology".

The committee says that the government should charter a cargo-cum-training vessel and train cadets for nautical experience on the ship for six months. Before they should have completed basic theoretical training on the training ship **Rajendra** for one year. The committee has suggested utilisation of soft facilities under Shipping Development Fund Committee for acquisition of training ships. The government should also bear the cost of pay allowances etc of teaching staff and the cadets under training. "In order to ensure that the quality and content of training should not suffer, not more than 125 cadets should be accommodated on the training-cum-cargo ship" the report says.

Rajagopal
AKHAPATNAM

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Indian muslin and the ring trick

The white man only seemed to twirl his moustache as he watched each 'saree' length of summery cotton pass through an ornate gold ring.

Then all of a sudden, he said 'My word! But that ring's just big enough to go round my finger'.

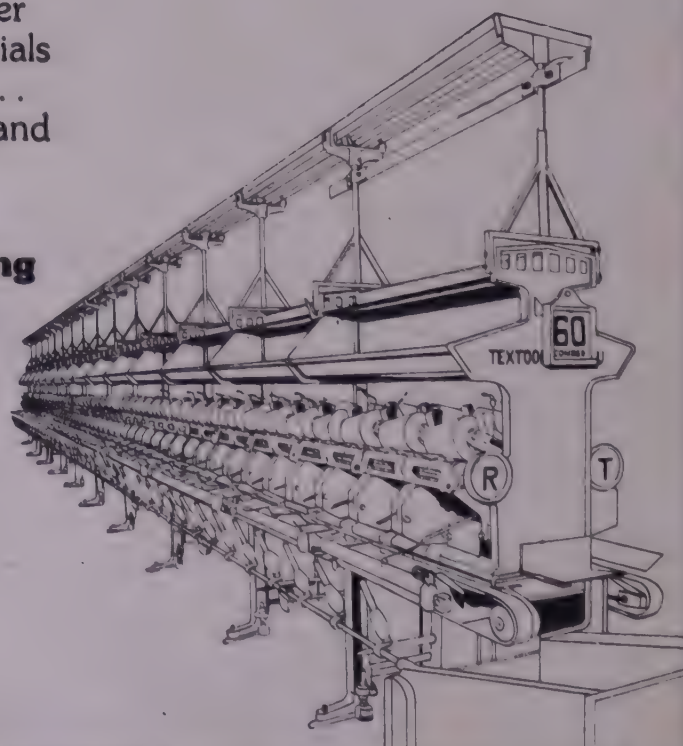
He met with a betel-stained grin.

'I'll take all the cloth you have' he said 'and, mind you, I'll be back for more.'

Thus began the export of Indian muslin to foreign shores... the traditional rage of British womenfolk for so many years.

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Vol. 145 No. 3715 August 21, 1982

EDITOR : VADILAL DAGLI

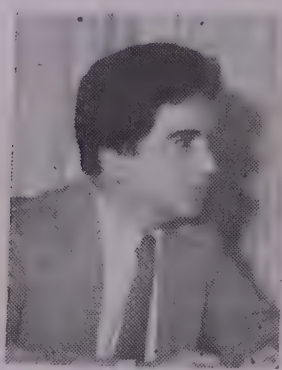
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PEOPLE



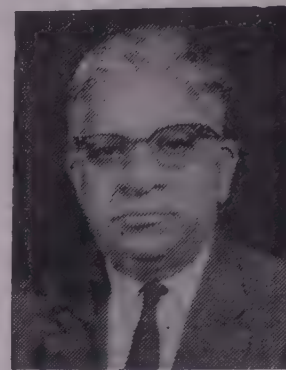
Gupta



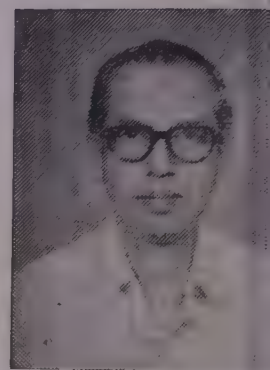
Khan



Vohra



Bedi



Dandekar

Mr B. Gupta has taken over as manager and chief executive officer of the State Bank of India in New York. Mr Gupta was previously posted as SBI's representative in Frankfurt and Moscow and then in Bombay as general manager (operations) in the international division of the SBI's central office.

Mr H. M. Khan, I.A.S., who is the chairman and managing director of Gujarat Industrial Investment Corporation Ltd, has been elected president of the Council of State Industrial Development and Investment Corporations of India (COSIDICI). COSIDICI is the all-India apex body representing state industrial investment and infrastructure public sector corporations.

Mr T. N. Vohra of Continental Carriers, New Delhi, has been elected president of The Air Cargo Agents Association of India.

Mr H. L. Bedi, has been elected a fellow of the Indian Institute of Bankers, Bombay. Mr Bedi was previously the first principal of the Bank of India and Bank of Baroda Staff Training Colleges at Bombay.

Mr A. V. Dandekar, general manager (manufacturing operations), Jyoti Ltd, has been re-elected president of the Bombay Productivity Council for 1982-83. Mr J. M. Jain, general manager (power equipment), Hindustan Brown Boveri Ltd, elected vice-president.

Mr J. N. Daulatjada, until recently deputy general manager of Bank of Baroda, has been promoted general manager (operations and services).

Mr S. Padmanabhan has assumed charge as chief general manager, international division, State Bank of India.

Mr P. C. Mehta has been elected chairman of Chemical Alkali Distributors Ltd for 1982-83.

Mr R. M. Pradhan, executive director of Central Bank of India, retired on August 12 on completion of his tenure. Pradhan had joined the bank in July 1943, and became its executive director in August last year.

Mr Ramdas Kilachand and Mr Tulsidas Mulji Vishram have been elected president and vice-president, respectively, of Bombay Oilseeds and Oils Exchange Ltd.

THE WEEK

The World Bank has offered Madhya Pradesh Rs 100 crores aid for setting up soyabean processing plants. It has also announced a \$ 31 million loan for irrigation in M.P. ★

The Soviet Union has offered to prepare a detailed project report for the Mukunda open cast project of the Bharat Coking Coal Ltd. this year. ★

The Bombay High Court has stayed the collection of television tax by the Maharashtra Government levied under the state's 1982 budget. ★

The state governments of Maharashtra and Madhya Pradesh have decided to complete the Rs 400-crore Bhopal Patnam hydro electric project on the Indravati river in the Seventh Plan. ★

The Department of Coal has sought an additional allocation of Rs 2 100 crores for coal companies to achieve the production target of 165 million tonnes in the Sixth Plan. ★

Indian and Japanese export organisations have signed a protocol for joint tendering and sub-contracting for projects in South East Asia, West Asia and Africa. ★

The Reserve Bank of India has set up a working group to examine trends in the growth of bank deposits in relation to the overall growth of financial savings; to review the interest rate structure.

India hopes to get \$ 1400 million aid from the International Development Association in the current year.

Mr Riaz Piracha, Pakistan's new Ambassador to India presented his credentials to the President of India, Giani Zail Singh, on August 3.

Wholesale price index

At 291.9, the latest available Wholesale Price Index for all commodities for the week ended July 31, 1983, showed a rise of 0.4 per cent over the week and 1.1 per cent over the year.

Money comfortable

Conditions in the Bombay short-term money market were comfortable as of Monday (August 16, 1983). In the inter-bank call money section both notified and commercial funds were renewed at five per cent. Free money was transacted at five per cent. The market closed at five per cent.

Police vandalism in Bombay

HAT happened in Bombay on Wednesday (August 18) was nothing short of a conspiracy—a conspiracy to smother the life out of the industrial capital of India. The sponsors of the rampage have not come forward to own it. But the immediate cause of the senseless acts of destruction and disruption was given to be the unhappiness of the policemen over the suspension of some office-bearers of the policemen's association in the wake of the black badge demonstration staged by the policemen on the Independence Day. Even if we were to concede, for the sake of argument, that the action of the Government of Maharashtra against the leaders of the police association was an over-reaction, would it still justify the acts of vandalism and destruction in which policemen were reported to have engaged on Wednesday (among those caught red-handed in the act of incendiaryism and destruction are nine policemen)? The answer must be an emphatic no.

And yet leaders of trade unions in the city had no doubts in supporting the unruly police and plunging the battered city into a second day of uncertainty by calling for a **bandh** on Thursday. They could not be unaware of the fact, in the light of experience of the outcome of their calls for such **bandhs** in the past, that the call would go completely unheeded by the public which had been shocked by the events of the previous day and saw no reason to lend their moral support to such unrestricted and uncalled-for hooliganism and destructiveness; apparently they were hooked on the fear complex of the peace-loving population which was sought to be heightened by fresh acts of senseless hooliganism in a few places on Thursday morning. But the citizens did not pay any heed to the threats and provocation and went to their work in near-normal strength from areas which were under curfew (where it expired on Friday morning, bringing to the city its full normal life). By aligning themselves with the utterly unjustifiable actions of the policemen the trade union leaders have made themselves liable to be answerable for the same before the public who would like to know what, in the eyes of the trade union leaders, was right in the destruction of shops (which the workers and the poor use) and the tea stalls on the railway platforms (which the low-income railway commuters, travelling long distances and having to remain out of their houses for long hours, have

to use)? Has the **bandh** secured the policemen their demands or added to the public sympathy for their cause? The open invitation to rowdiness in the name of the defence of the interest of the poor is no more justified than rowdiness of the rich, since both harm the society! This must be dealt with firmly.

Thus the announcement of the Maharashtra Chief Minister, Mr Babasaheb Bhosale, that there would be no negotiation with the policemen's union, would be received with great approbation. It is to be hoped that he would not budge from this position of firmness. This is not to suggest that everything that the government has done is right. Far from it. For example there was no need to wait for a riot by the policemen before the government appointed a one-man committee to look into the police grievances. Many of the demands of the policemen are general demands of government employees—provision for accommodation, education of children, promotion after a specified period, increase in allowances and so on. The policemen are not far wrong in raising these demands but are certainly mistaken to conclude that the government ought to favour them to the exclusion of other employees. Nevertheless the government should not have taken so long to initiate measures for an examination of the reasonableness of the policemen's demands and the feasibility of meeting them. Still the policemen cannot be given the right to take law in their own hands, as they did on Wednesday, and hold the city to ransom. Even on Friday many traffic signal points were unmanned by the policemen, heightening the danger of accidents and jeopardising the life of the people. Apparently indiscipline has remained incipient among many policemen in Maharashtra, to go by what the Chief Minister himself disclosed on Thursday about the acts of indiscipline and insubordination on the part of the policemen. The question is: Why did the government consider it necessary to put up with such indiscipline on the part of the policemen for such a long time?

The figure of Mr A. R. Antulay, the former chief minister of Maharashtra, seems to emerge at every trouble spot in the city. It is astounding that he should have thought it his duty to spend money to give a bounty to the policemen's association, even after he had

tendered resignation and was occupying office just as a matter of formality to hand over power to the next chief minister. Obviously Mr Bhosale, while formally absolving Mr Antulay of direct involvement in Wednesday's crimes, has his reservations in giving Mr Antulay a clean chit. For while disclosing Mr Antulay's donation of Rs 66,000 to the policemen's association, he added that that amount represented the help on "record" but nobody knew how much indirect help was given to the policemen's association. That Mr Antulay was chief minister until very recently perhaps needs to be considered part of the explanation for the extraordinary unresponsiveness of the Maharashtra Government to the

acts of indiscipline of the police over such a long period. But that explanation only heightens anxiety.

The irresponsibility of the trade union leadership coupled with their utter impotence and irrelevance on the one hand and the irresoluteness on the part of the government to deal firmly with indiscipline in the police force make up for a very dangerous situation which if left to develop unchecked, can lead to only one end—dictatorship, in which many rulers of today would find their position and people's tribulation increase. Believers in democracy should thus realise the gravity of what is taking place and come forward to take remedial steps before the rot spreads too far.

Fuel for Tarapur

THE brief 2-day recent visit of the French Foreign Minister, Mr Claude Cheysson, to New Delhi has paved solid foundations for further Indo-French economic co-operation and created also a most favourable climate for President Mitterrand's visit to this country. Even when it was announced during Mrs Indira Gandhi's visit to the United States that France, instead of the United States, would supply enriched uranium needed as fuel by the Tarapur atomic plant, it was not clear whether France too would insist on some rigid conditions for these supplies. Mr Cheysson has now made it clear that France would impose no special conditions for supplying enriched uranium for the Tarapur plant nor exercise any control over reprocessing of the spent fuel by India. India would be free to reprocess the spent fuel without any consultations with France though his country would insist that the fissile material from the reprocessed spent fuel should be subject to safeguards by the International Atomic Energy Agency (IAEA).

There should be no difficulty about this since even with regard to US supplies of enriched uranium and reprocessed spent fuel from them India had already agreed that this should be subject to IAEA's safeguards and to that effect there existed the 1971 trilateral arrangement between India, the US and the IAEA and the 1980 India-IAEA agreement. What India has been opposing is the US stand that this reprocessing of the fuel should be subject to "joint determination" which, in effect, would have given overriding voice to the United States before India could reprocess the spent fuel. A reprocessing facility has already been built at Tarapur. But it has not been possible for India to make use of it because of the dispute with the US on the issue of "joint determination" though piles of spent fuel have been built to almost saturated levels. Mr Cheysson has

promised that the supplies of enriched uranium would be prompt and this should enable the Atomic Power Authority to work the 400-mw units of Tarapur at optimum rather than half of the capacity. The supplies would also help in making better use of the nuclear complex facilities at Hyderabad which in the absence of supplies of enriched uranium promised to remain idle.

Mrs Gandhi and other Indian spokesmen have declared that India does not accept the stand of the United States in respect of reprocessing of spent fuel and that India is free to reprocess it at any time she likes. In fact the fact remains it has not taken such a step and would like the United States not to insist on "joint determination". It is to be hoped, now that France has made its position clear, that the United States would similarly agree to India freely reprocessing the spent fuel. Plutonium from the reprocessed spent fuel is essential for India's next stage of atomic power development during which it has planned to set up breeder reactors to make use of the large reserves of thorium. Of course, the implementation of such a programme is not in sight. Even the first stage of the programme—the development of heavy water uranium reactors—has gone awry. The Kota Candu reactor in Rajasthan is for all practical purposes not functioning and the Kalpakkam reactor in Tamil Nadu cannot go into operation because of lack of heavy water. The Narora atomic power station in Uttar Pradesh is also nowhere near completion. It is clear that the government has appointed a committee headed by Dr N. B. Prasad to examine the working of the Rajasthan power station and its investigations should provide guidance to the Department of Atomic Energy on remedial measures to be taken at Rajasthan as well as to accelerate the completion of the atomic power stations at Kalpakkam and Narora on which already hundreds of crores of rupees have been spent.

EDITOR'S NOTEBOOK

Vadilal Dagli

Idless import policy

It is sad that our latest import policy is fast undoing the great achievements of Jawaharlal Nehru who laid the foundation of a self-reliant industrial India. For the past years import policy is being liberalised and in April last OGL was further expanded, to include items which are made in the country. When recently leading members of commerce protested against this import policy it was revealed that it has harmed only the big and the powerful. But the case is quite different. The import policy has harmed at one end literally thousands of young engineer-entrepreneurs who have set up small units. Recently I met a young technician who has gone out of business because of the mind-boggling import policy. In an industrially backward area this technician was producing magnetic head (an electro-magnetic component for taperecorder). This is his story:

"About five years ago I began to manufacture magnetic heads. I had done some research and developed the product which was better than that manufactured in foreign countries. Till I started producing magnetic heads it was not produced in India. This product was easily marketed in the country and many reputed firms purchased it. At that time the price was about Rs 15 per piece. That just made our both ends meet. Then came the blow of OGL (Actual User) imports. It is noteworthy that smuggling of magnetic heads also began in a big way, with the result the market was flooded with magnetic heads and the price slumped as low as Rs 6 per piece. In this situation what did I do? I reduced my price to Rs 5 per piece. Naturally this meant a huge loss to me, but I wanted to remain in the market. However, this was an unequal battle. Japan is dumping magnetic heads and the Japanese government gives the manufacturers a 70 per cent subsidy on the exports of this item. Theoretically we can sell it at any price to capture the market. So what happened was that our magnetic head industry is now completely wiped out. I

am out of business now. I have closed down my factory."

Hospital as business

FOR a vast country such as ours with a population of 68 crores the health services available are miserable. According to official statistics the number of hospitals was no more than 6,695 and dispensaries 15,600 in 1979. We had hardly 5,54,000 beds which gave a ratio of 85 beds per lakh of population. I do not think that the picture has altered much since then. Hospital facilities are concentrated more in the urban than in rural areas. But this is only a comparative statement and those living in cities like Bombay, Calcutta or Madras know for themselves the inadequacy of medical facilities. Government hospitals and those run by philanthropic organisations are all overcrowded and they just cannot admit hundreds of patients. This is why I welcome the idea of the setting up of a hospital in the private corporate sector in Madras. If this idea catches on and the Madras venture proves a success, we may have many more hospitals of this kind in the country. We can even have two or three hospitals for the rich Arabs who are thronging in large numbers to avail of the cheap medical facilities here.

The Madras hospital promoted by an eminent cardiologist, Dr Pratap D. Reddy, will have 250 beds and will have over 50 medical and surgical departments. It will cost Rs 9 crores in all. The Apollo Hospitals Enterprise is expected to have the latest medical facilities and equipment and later on proposes to manufacture medical equipment and pharmaceuticals in collaboration with well-known companies. We are not accustomed to thinking of hospitals as commercial ventures. But whatever helps to improve medical facilities should be welcomed.

Manibhai Desai

MR Manibhai B. Desai, who has been awarded the 1982 Ramon Magsaysay award for his service to the poor in India, is a rare Gandhian, who combines in his personality innovative entrepreneurship and a vision for regenerating moribund rural India. Manibhai, who also

received in the same week the prestigious G. J. Watumull award is the managing trustee of the Bharatiya Agro-Industries Foundation (BAIF) at Urlikanchan near Pune. When he was in his early 20s he went to Gandhiji who asked him to go to a neglected village and devote his life to serve the dumb millions of India. Manibhai took the vow and fulfilled it so creatively and so gloriously that Gandhiji would have rejoiced at this honour had he been in our midst today.

For the past 40 years he lived among the poor villagers of Urlikanchan and studied the causes of poverty and devised simple and inexpensive techniques to remove poverty. His major contribution, in my view, is that he only used local resources so that the productivity of economic operations of poor villagers would go up and their purchasing power would increase, whether it be use of water, fodder, use of land, reclamation of waste land, afforestation or animal husbandry. Manibhai evolved methods which were so effective and yet so easily adaptable and so labour-intensive that it yielded results. His contribution in evolving a perennial fodder called 'subabul' which could grow in a waste land and which could be used as fodder and fuel will be a bright chapter in the history of rural development in India.

The well-known industrialist and philanthropist, Mr Arvind N. Mafatlal, recognised the relevance of Manibhai's techniques and their combined partnership elevated rural poverty in thousands of huts. In my view the two noteworthy ingredients of Manibhai's techniques for rural change are: (1) A beginning of rural development should be made by attacking those areas where abject poverty prevails. (2) The poor cannot become producers and consumers if they are not given inputs and technology for uplifting themselves with their own efforts. Among a few blessings of my life is the friendship of Manibhai whose work and thought have influenced my writing on economic development. Without any exaggeration one can say that what Homi Bhabha did in the field of atomic energy in India, Manibhai has done in the field of rural regeneration.

LETTER FROM BRUSSELS

Will EEC withdraw from MFA?

From MALCOLM SUBHAN

LIKE any good negotiator, Mr Horst Krenzler never gives anything away if he can help it. He is guarded not only in his speech but also in his gestures, lest they betray him. As the EEC's chief textile negotiator he has the task of getting the Community's "low-cost" suppliers to accept fresh restrictions on their exports to its 10 member states.

When I called on him in his spacious fourth floor office at the European Commission's headquarters, Mr Krenzler had just drawn up the balance sheet of 10 weeks of negotiations with over 30 textile exporting countries, ranging from Haiti to Hongkong.

He and his team had concluded new four-year agreements with 14 countries (4 Asian, 5 Latin American and 5 East European). At the same time they had persuaded all the Mediterranean countries, with the exception of Portugal, to accept continued restrictions on their exports to the EEC, despite preferential agreements giving them quota-free access for all their manufactured products.

During the second round of negotiations, scheduled for September, the Common Market team will try to conclude agreements with its dominant suppliers (Hongkong, South Korea and Macao), India, four ASEAN countries (the fifth, Thailand, having initialled an agreement in July), Yugoslavia, Egypt, Brazil and Colombia.

I put it to Mr Krenzler that (1) many of the countries with whom a second round of negotiations had proved necessary were major exporters and (2) all of them were resolved to stand by the common front established by the developing countries in Geneva in May. Under these conditions, either the EEC or the exporting countries—or even both—would have to modify their negotiating position if agreement was to be reached by September 24, the European Commission's self-imposed deadline. In other words, had he asked the member states to modify the negotiating mandate they had given him? If not, was he planning to do so?

Mr Krenzler explained he had not asked for modifications, knowing the member governments were certain to refuse them. The Community's economic situation had deteriorated even further since February, when the EEC's Council of Ministers had finalised his negotiating

mandate. Consumption was still falling in real terms and production remained depressed. Mr Krenzler reminded me that another European textile firm had closed its doors in the past 24 hours, adding another 500 to the soaring unemployment statistics.

Did he then expect the exporting countries to modify their stand? Mr Krenzler refused to forecast the outcome of the September negotiations. He agreed they would be extremely difficult, but thought I was being unduly pessimistic. The fact that a second round of negotiations was scheduled with several countries did not mean that the first round had been entirely fruitless.

Even the negotiations with the three "dominant" suppliers had progressed. While the major point at issue remained the Community's demand for a 12 per cent cutback in their base levels, he thought the forthcoming negotiations would focus on the level of the cutbacks and their form.

Macao, for example, was prepared to accept a cutback of less than 12 per cent and the EEC in fact had proposed 10 per cent. Hongkong had refused a straightforward reduction in base levels but could envisage other solutions, such as a standstill.

The ASEAN countries were strongly opposed to the anti-surge clause, as was India, but the EEC still hoped to show them that it would *not* be automatic in its application: the Community's draft stipulates that the EEC *may* request the opening of consultations, following which it may (*not* will) ask the exporting country to limit exports (but in no case at levels below its 1980 exports).

Mr Krenzler stressed that the exporting country would receive "equitable and quantifiable" compensation. He strenuously rejected the suggestion that such compensation would be of a token amount, although he agreed that it would not necessarily be on a one-for-one basis. Compensation could take the form of increased flexibility, for example, or an increase in a quota which had been fully utilised.

India's decision not to resume negotiations in July (taken on the grounds that the Community's mandate was unchanged) had been something of a set-

back for Mr Krenzler's team. There was a feeling here that New Delhi's refusal was politically motivated: it did not want to reach an agreement before other Asian suppliers, notably ASEAN.

I asked Mr Krenzler whether he had a solution to the problem of handloom products. India wants them excluded from the scope of the new agreement and Article 12 of the MFA clearly provides for exclusion when handloom fabrics, and products made from them, "are properly certified" under arrangements negotiated between exporting and importing countries.

Mr Krenzler told me that he understood why it was politically important for New Delhi to secure quota-free entry into the EEC for all handloom products. He reminded me of the arrangement concluded by his predecessor in 1977, when the Community defined handloom products in such a way as to exclude garments made from handloom fabrics stitched on manually-operated machines.

In order to obtain access for Indian handloom garments, which normally are sewn on just such machines, its negotiators agreed that four categories could be made subject to quotas. The EEC, in its part, (1) agreed that these garments could be sewn on hand- or foot-operated machines and (2) offered much larger quotas for the four categories in question.

Mr Krenzler felt India was now going to go back on this arrangement. He thought that the lifting of quotas for handloom products was not in the best interests of the handloom sector. The EEC would insist on its own definition with the result that the customs authorities at Common Market ports would check imports from India much more thoroughly, to make sure that everything was handstitched. With some member states only too ready to question the reliability of India's certification procedure, the complete liberalisation of handloom products could therefore result in further delays at the ports.

It was clear from everything Mr Krenzler told me that the forthcoming negotiations, whether with India, ASEAN countries or the dominant suppliers, will be extremely difficult. If besides remained inflexible, the outcome

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Sugar buffer stock : Framework for price stability

COMMERCE RESEARCH BUREAU

THE Government of India's decision to create a five lakh tonne buffer stock of sugar should be welcomed by all those who want to stabilise sugar economy from the recurring crises of plenty or scarcity. Sugar has become the symbol of the management of the supply side of the economy. The sugar buffer stock should be a beginning of a series of bufferstocks not only for sugar goods but also for such other commodities as non-ferrous metals.

It was in 1965 that the Sen Inquiry Commission for the first time recommended the creation of a sugar buffer stock. Since then, a number of other committees have made this suggestion. On a number of occasions, industry has also demanded the creation of a buffer stock. However, the government always adopted a halfhearted approach to the issue. But now the government has taken a firm decision to create a buffer stock of sugar.

According to the announcement made by the Union Agriculture Minister, Mr Rao Birendra Singh in Parliament on July 26, the buffer stock will be created out of the free sugar and kept sequestered with sugar mills. For this purpose, 100 per cent credit will be provided by the government. In addition, mills will be compensated for holding the buffer stocks by providing them with holding cost at interest actuals at the rate of 19.5 per cent of the quarterly averages of the tariff value of free sale sugar in effect from October 1, 1982.

Parliament was told that the government would work out the modalities of the buffer stock operation in consultation with the Reserve Bank of India, with a view to ensuring that the additional credit given to banks is kept in a separate account for utilising it towards the payment of cane price arrears.

The government has also decided to amend the acts governing the payment cess and the cess fund

and the cess fund for sugar to cover the scheme, by raising the present level of cess from Rs 5 per quintal to Rs 15 per quintal of sugar produced.

Sugar balance sheet

The Union Government's policy towards the sugar industry has all along been dictated by the need to ensure remunerative prices for sugarcane growers and sugar factories on the one hand and reasonable prices for the sugar consumers on the other. This year, the sugar industry is faced with the prospect of bumper production which would see India emerging as the world's leading sugar producer, but which is also expected to result in a huge stock pile of sugar with the Indian industry. Not only that; even the next sugar season is expected to be a bumper one, compounding the problems of the industry. That could in turn adversely affect the cane grower and the sugar consumer.

The 1981-82 sugar season (October-September) is expected to witness the highest-ever sugar production of 84 lakh tonnes, consequent to the record sugarcane output of 180 million tonnes. With a carry-over stock of 8 lakh tonnes from the 1980-81 season, the total availability of sugar this season would be 92 lakh tonnes, as against 57 lakh tonnes in the 1980-81 sugar season. Even if India could export the quantity of seven lakh tonnes of sugar allotted to it by the International Sugar Organisation for 1982, the net availability would be 85 lakh tonnes in the 1981-82 season. The official estimate of internal consumption is 55 lakh tonnes, which would leave a closing stock of sugar at the end of the current season of around 30 lakh tonnes, against only 8 lakh tonnes in the previous season (Table 1).

Even the 1982-83 sugar season is expected to be a bumper one, with sugar production being estimated at at least 70 lakh tonnes. Coupled with the carry-over stock of 30 lakh tonnes

from the present season, the total availability would be almost 100 lakh tonnes. According to the Indian Sugar Mills Association (ISMA), internal consumption in the 1982-83 season is unlikely to exceed 57 lakh tonnes, whereas exports would not take more than 10 lakh tonnes. Thus the 1982-83 sugar season would in all probability end up with an equally large carry-over stock as in the current season.

The prospect of these huge stocks and their financial implications have apparently forced the government to take a decision to build up the sugar buffer stock. However, it is far from clear how the buffer stock will operate. For example, one wonders why the government has decided to keep the stocks with the mills instead of procuring them straight away. Would this type of arrangement not leave loopholes for unscrupulous mills to indulge in malpractices? And how is the government going to ensure that the credit and other facilities being offered to the mills will be utilised for the purpose of operating the buffer stock alone and not diverted?

Cycles of fluctuations

The Indian sugar industry has for long been characterised by cyclical fluctuations in terms of output and the availability of raw materials. The cyclical fluctuations in the production of sugar have been followed by recurring periods of shortages and gluts of sugar, in turn accompanied by fluctuating prices. The idea of a buffer stock of sugar

Table 1 : Sugar balance sheet

(Lakh tonnes)

	1981-82	1982-83
Opening stock	8	30
Production	84	70
Availability	92	100
Internal consumption	55	57
Exports	7	10
Closing stock	30	33

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is basically aimed at evening out these price fluctuations and, to the extent that the prices of sugar affect sugarcane crops, they also lead to fluctuations in sugarcane availability. For, unless the cyclical pattern is broken, the industry will continue to remain a susceptible one; it would not be stabilised.

The cyclical variations in the sugar industry can be observed in the availability of sugarcane. The availability of sugarcane could therefore make or mar the fortunes of the industry.

In recent years, the production of sugarcane has gradually risen from 113.6 million tonnes in 1971-72 to 144.3 million tonnes in 1974-75. It declined the next year to 140.6 million tonnes and rose once again to 177.0 million tonnes in 1977-78. From 151.7 million tonnes in 1978-79, the production of sugarcane declined to 128.8 million tonnes in 1979-80, only to rise to 150.5 million tonnes in 1980-81. The 1981-82 season is expected to see a record production of 180 million tonnes of sugarcane.

The fluctuations in the production and the availability of sugarcane are largely due to the fluctuations in land area under the sugarcane crop. From 23.9 lakh hectares in 1971-72, it rose to 28.9 lakh hectares in 1974-75, declined to 27.6 lakh hectares the next year and rose again to 31.5 lakh hectares in 1977-78. In 1978-79, the land area under the sugarcane crop declined to 30.9 lakh hectares and further to 26.1 lakh hectares in 1979-80. In 1980-81, it was 26.5 lakh hectares (Table 2).

The fluctuations in the regional recovery of sugar from sugarcane are equally marked. The history of the Indian sugar industry shows a shift from the north where it began over a period of time to the south. In 1951-52, Uttar Pradesh was the largest producer of sugar in India accounting for 56.1 per cent of the total output followed by Bihar (15.1 per cent), Bombay (10.8 per cent) and Tamil Nadu (6.7 per cent). The situation has changed considerably since then. By 1980-81, Maharashtra topped the list with a production of 21 lakh tonnes of sugar accounting for 40.5 per cent of the total output followed by Uttar Pradesh (23.8 per cent), Tamil Nadu (8.4 per cent), Karnataka (7.2 per cent), Gujarat (6.4 per cent) and Andhra Pradesh (5.1 per cent). Thus a structural

change has come about in the sugar industry and the larger proportion of the output now comes from the tropical belt of states comprising Maharashtra, Andhra Pradesh, Tamil Nadu and Karnataka than the output coming from the sub-tropical belt of states of Uttar Pradesh,

Bihar, Rajasthan and Orissa. There are also considerable regional variations in the recovery of sugar from sugarcane (Table 3).

The fluctuations in the production of sugarcane, area under sugarcane crop and the regional variations in the output and recovery

Table 2 : Availability of sugarcane and production of sugar

Year	Area under sugarcane ('000 hectares)	Yield of cane per hectare (tonnes)	Production of sugarcane ('000 tonnes)	Production of sugar ('000 tonnes)
1961-62	2,456	42.3	107,226	27.1
1962-63	2,242	41.0	91,913	21.1
1963-64	2,249	46.4	104,225	25.1
1964-65	2,603	46.7	122,077	32.1
1965-66	2,836	43.7	123,990	35.1
1966-67	2,301	40.3	154,023	48.1
1967-68	2,047	46.6	92,827	21.1
1968-69	2,532	49.2	95,500	22.1
1969-70	2,748	49.1	124,676	35.1
1970-71	2,615	48.3	135,024	42.1
1971-72	2,390	47.5	126,368	37.1
1972-73	2,452	50.9	113,569	31.1
1973-74	2,752	51.2	124,867	38.1
1974-75	2,894	49.9	140,805	39.1
1975-76	2,762	50.9	144,289	47.1
1976-77	2,866	53.6	140,604	42.1
1977-78	3,151	56.2	176,965	64.1
1978-79	3,088	50.2	151,655	58.1
1979-80	2,610	49.4	128,833	38.1
1980-81	2,648	56.8	150,521	51.1
1981-82 (E)	3,169	56.8	180,000	84.1

Table 3 : Statewise average sugar recovery

Name of the States	1961-62	1971-72	1978-79	1979-80	1980-81
Assam	8.60	9.04	8.25	7.96	7.96
Andhra Pradesh	9.90	10.25	9.07	8.57	8.57
Bihar	9.12	8.85	8.86	9.11	9.11
Goa	—	—	9.01	8.22	8.22
Gujarat	10.90	10.30	10.19	10.58	10.58
Kerala	8.69	8.85	7.54	7.96	7.96
Maharashtra	11.85	11.08	10.95	10.60	10.60
Madhya Pradesh	9.41	9.55	9.11	8.88	8.88
Karnataka	10.54	10.79	10.12	10.02	10.02
Nagaland	—	—	8.09	8.96	8.96
Orissa	8.68	9.13	8.34	8.46	8.46
Punjab	8.22	8.75	9.43	10.14	10.14
Pondicherry	8.98	8.59	8.31	7.79	7.79
Haryana	—	9.33	8.69	9.35	9.35
Rajasthan	9.31	9.06	9.45	9.44	9.44
Tamil Nadu	9.37	9.17	8.52	9.00	9.00
U.P. East	9.50	9.31	9.05	9.29	9.29
U.P. Western	9.06	9.61	9.66	10.15	10.15
U.P. Central	9.37	9.34	9.16	9.79	9.79
West Bengal	10.18	7.64	8.16	7.13	7.13



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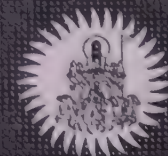
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sugar have in turn led to fluctuations in the production of sugar itself. For example, from 31.08 lakh tonnes in 1971-72, the production of sugar rose to 38.73 lakh tonnes in 1972-73, to 39.48 lakh tonnes in 1973-74 and further to 47.94 lakh tonnes in 1974-75. The year 1975-76 saw a fall in production to 42.61 lakh tonnes. In the next two years, the production of sugar again rose to reach a level of 64.57 lakh tonnes in 1977-78. In the subsequent two years it once more declined to reach a low level of 38.58 lakh tonnes in 1979-80. In 1980-81, the production of sugar was 51.43 lakh tonnes whereas in 1981-82 it is expected to be 84 lakh tonnes.

Unless the cycles of shifting fortunes are broken at some point, there is no salvation for the sugar industry and for all concerned with it. Even though the government has finally made up its mind on the question of a buffer stock, one wonders whether this by itself would be sufficient to enable the cycles to be broken. For, the government is yet to evolve an integrated long-term policy on sugar enveloping all the concerned sectors and sub-sectors.

In this context, it would be pertinent to note the observation made by the Committee on Controls and Subsidies (Dagli Committee), which submitted its report in May 1979. While recommending a buffer stock, the committee said: "The concept of buffer stocks is essentially relevant for meeting cyclical variations in output. If there is a structural and long-term imbalance, buffer stocking cannot provide a solution unless it is envisaged as a method of providing for a smooth and easy transition. But then, buffer stocking can provide a basis for a smooth transition if it is also accompanied by appropriate policies and an action programme calculated to solve the long-term problem".

Integrated sugar policy

Notwithstanding the decision to create a buffer stock of sugar, it is still a far cry from an integrated sugar policy. Sugar is not the only end-user industry of sugarcane. It is not

even the major consumer of it. India is probably the only country where three sweetening agents — sugar, gur and khandsari — compete with each other both for the common raw material and the market. While the government has evolved a fairly clear policy towards the sugar industry, it has not yet specified the role it expects gur and khandsari to play in the integrated policy.

An integrated sugar policy would also help in eventually reducing the cyclical fluctuations in the industry. This is because the absence of such a policy has vitiated the government approach towards the different sectors of the overall sweetening industry. Thus, for example, the sugar industry has been subjected to numerous controls whereas the gur and the khandsari sectors have been free of controls. The fact that the imposition of price controls on sugar and the absence of such controls on gur and khandsari have partly been responsible for the cyclical fluctuations in the sugar industry has been corroborated by the Sixth Five Year Plan (1980-85).

According to the Plan document, "the wide fluctuations in sugarcane production result in periodic scarcity and surplus in sugar causing distress to the farmers, the sugar industry and the consumer. This calls for a rational policy of pricing sugarcane and sugar, as also other sweetening agents like gur and khandsari".

Besides the need for putting the sugar industry on a sound footing, an integrated policy of sugar is called for in order to raise the consumption of sugar by people. It should be noted that sugar along with its substitutes like gur and khandsari is a commodity of mass consumption and goes into the determination of levels of living of people.

By any standard, the per capita consumption of sugar in India at 6.8 kg in 1977 could be regarded as very low, as compared with the world average of 20.6 kg and 40 kg in the UK, 44 kg in USA and 48 kg in the USSR.

In this context, it should also be noted that the demand as well as

consumption of sugar could go up if more sugar could be made available at reasonable prices. For example, in 1977-78 and 1978-79 when the sugar prices were low, the consumption of sugar in India went up sizably — from 37.56 lakh tonnes in 1976-77 to 40.90 lakh tonnes in 1977-78 and further to 62.09 lakh tonnes in 1978-79. Any policy on the sugar industry must keep this point in mind and try to raise people's consumption of sugar.

Will it sweeten our sugar?

While the idea of a sugar buffer stock should be welcomed in principle, there are reasons to be sceptical about the efficacy of this scheme in achieving its goals — to even out price fluctuations. For one, the Union Government does not appear very keen to bring down the open market prices of sugar, which have reached fairly high levels, to reasonable levels. This has been evident from the monthly releases it has been making during the 1981-82 sugar season. The releases have not been much higher this season over the previous season in spite of the marked rise in production. During the first eleven months (October-August) of the 1981-82 sugar season, the total releases have been of the order of 51.76 lakh tonnes, which marks hardly a 16 per cent increase over the release of 44.78 lakh tonnes in the corresponding period of the 1980-81 season (Table 4). And this at a time when both production and availability of sugar are expected to register more than a 60 per cent rise. If the government is not using the mechanism it already has in its hands to ensure reasonable prices of sugar, one wonders if there is any guarantee that it would use the buffer stock mechanism for this purpose. And unless the consumers benefit from buffer stock operations in terms of reasonable prices, the scheme could hardly be justified.

Another point on which one could doubt the efficacy of the buffer stock is its size. At a time when the internal consumption of sugar has been around 50 to 60 lakh tonnes, a buffer stock of five lakh tonnes would be equal to only one month's

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consumption. A buffer stock of this level would not help in evening out the fluctuations in the open market prices of sugar. The government could have easily decided to keep a buffer of 15 lakh tonnes, or about three months' consumption, which would have enabled the government to operate the buffer stock with much more efficacy.

Prices

The prices that consumers have had to pay for sugar have generally remained on the higher side since 1979. This can be seen from the movements of both wholesale and retail prices. The average wholesale price index for sugar with base 1970-71 = 100, which had fallen from 163.3 in 1977 to 149.9 in 1978 rose to 160.1 in 1979 and further to 233.8 in 1980. In 1981, the prices rose still higher and the average index for 1981 was 264.8. The retail prices of sugar also registered high levels. In 1980, the highest retail price of sugar in the Bombay market was Rs 15 per kg, as on October 31. In 1981, the highest retail price was Rs 9.60 per kg, reached on April 17.

It would be ironical if consumers had to pay more prices for sugar because of the decision to create the buffer stock. But this is what appears to be happening. The government has decided to raise the development cess on the sugar industry from Rs 5 per quintal to Rs 15 per quintal. This has led to the apprehension that the issue price of sugar might also go up correspondingly from the present level of Rs 365 per quintal to Rs 395 per quintal. Even the present issue price of sugar of Rs 365 includes development cess of Rs 5 per quintal. If the issue price is really raised, it would tend to reduce the demand for sugar at a time when availability is easy.

It should be noted that the government could not take a firm decision on a sugar buffer earlier because of the difference of opinion in the Union Cabinet on precisely this issue. While the finance ministry was opposed to giving any budgetary support or subsidy for the operation of the buffer stock, the

commerce ministry was against raising the excise duty on sugar on the ground that it would hit the consumer. Now that it has been decided to create the buffer stock out of free sale sugar, no amount of subsidy ought to be involved. In the case of the food buffer stocks, the foodgrains have to be issued at fixed prices which are not much higher than the procurements prices and therefore huge subsidies are associated with these stocks. This would not happen in the case of sugar. However, the idea for which the government has settled — raising the development

cess — may yet hit the consumer.

Since the buffer stock is to be created out of free sale sugar, the government will have to purchase this sugar from the open market. At the presently prevailing wholesale prices of sugar around Rs 54 per quintal, the purchase of five lakh tonnes of sugar would entail an expenditure of Rs 270 crores. Adding interest on this amount, one gets a financial involvement of Rs 350 crores. On the other hand, the additional amount of cess to be collected from the industry, on the production of 84 lakh tonnes at the rate of

Table 4 : Monthly releases of sugar*
October to August : 1980-81 & 1981-82

(Lakh tonnes)

Month	1980-81 season	1981-82 season	% change
October	4.37	5.61	+ 28.4
November	4.50	4.71	+ 4.7
December	4.11	4.41	+ 7.3
January	3.71	4.11	+ 10.8
February	3.42	4.11	+ 20.2
March	3.64	4.21	+ 15.7
April	3.82	4.34	+ 13.6
May	4.41	4.44	+ 0.7
June	4.22	4.94	+ 17.1
July	4.17	4.94	+ 18.5
August	4.41	5.94	+ 34.7
Total	44.78	51.76	+ 15.6

* Levy + free sale sugar

Table 5 : Sugar : Domestic and export prices

Year	Export			Price in Bombay Market (Rs per quintal) @	Difference between col. (3) and col. (4) as % of col. (4)
	Quantity (lakh tonnes)	Foreign exchange earned (Rs crores)	Unit value realised (Rs per quintal)		
	(1)	(2)	(3)	(4)	(5)
1970-71	3.48	27.60	79.31	176.83	-55.1
1971-72	3.17	30.20	95.27	219.83	-56.7
1972-73	1.02	13.30	130.39	337.83	-61.4
1973-74	2.53	42.70	168.77	373.08	-54.8
1974-75	6.95	339.00	487.77	462.67	+ 5.4
1975-76	11.88	468.49	394.35	443.83	-11.1
1976-77	5.80	152.01	262.09	459.83	-43.0
1977-78	0.68	19.48	286.47	383.33	-25.3
1978-79	7.37	131.85	178.90	261.50	-31.6
1979-80	5.68	128.94	227.00	352.58	-35.6
1980-81	0.72	35.96	499.44	720.90	-30.7

@ Note : Col. (4) represents average of month-end wholesale prices.

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10 per quintal, would yield only 84 crores.

ports

The operation of a buffer stock would be expected to help exports of sugar. By evening out the ups and downs in the output of sugar, a steady flow of sugar for export markets could be effected. This way the operation of a sugar buffer stock could be expected to help India to sustain sugar exports.

While there can be no dispute about the utility of sugar exports, the export obsession that the Government has shown in recent years cannot be defended. This is particularly so because sugar has not been exported at times when the domestic prices have been high and export earning pretty low. The country has to bear the cost of subsidised exports of sugar. The 'social cost' has not been offset by foreign exchange earning as the export earnings has been much lower than the domestic prices. A glance at Table 5 would reveal that except in 1974-75, the benefits of sugar exports have been negative in this decade. In view of the obsession of the government with sugar exports, it would suggest that it examine the feasibility of creating 100 per cent sugar exporting units. Buffer stock operations should be primarily aimed at stabilising the domestic prices.

Table 6: State-wise monthly levy sugar quotas ensuring per capita availability of 425 grams on the basis of population as on 1-3-1981 (effective from April, 1982.)

Sl. No.	State/Union Territory	Population as on 1-3-81	Quota ensuring per capita availability of 425 grams (tonnes)	States whose per capital availability out of earlier quota is higher than 425 grams.
1.	Andhra Pradesh	5,34,03,619	22,696	
2.	Assam	1,99,02,826	8,459	
3.	Mizoram	4,87,774	207	
4.	Bihar	6,98,23,154	29,675	
5.	Gujarat	3,39,60,905	14,433	
6.	Haryana	1,28,50,902	5,462	
7.	Himachal Pradesh	42,37,569	1,801	
8.	Jammu & Kashmir	59,81,600	2,542	
9.	Kerala	2,54,03,217	10,796	
10.	Madhya Pradesh	5,21,31,717	22,156	
11.	Maharashtra	6,26,93,898	26,645	
12.	Karnataka	3,70,43,451	15,743	
13.	Nagaland	773,281	340	Nagaland 440 grams
14.	Orissa	2,62,72,054	11,166	
15.	Punjab	1,66,69,755	7,085	
16.	Rajasthan	3,41,02,912	14,494	
17.	Tamil Nadu	4,82,97,456	20,526	
18.	Uttar Pradesh	11,08,58,019	47,111	
19.	West Bengal	5,44,85,560	23,156	
20.	Andamans & Nicobar	1,88,254	190	Andamans & Nicobar 1009 grams
21.	Chandigarh	4,50,061	275	Chandigarh 611 grams
22.	Dadra & Nagar Haveli	1,03,677	44	
23.	Delhi	61,96,414	6,104	Delhi 985 grams.
24.	Goa, Daman & Diu	10,82,117	470	Goa, Daman, & Diu 431 grams
25.	Lakshdweep	40,237	65	Lakshdweep 1615 grams
26.	Manipur	14,33,691	609	
27.	Meghalaya	13,27,874	564	
28.	Arunachal Pradesh	6,28,050	267	
29.	Pondicherry	6,04,136	257	
30.	Tripura	20,60,189	876	
31.	Sikkim	3,15,682	134	
Total		68,38,10,051	2,94,348	

Will EEC withdraw from MFA?

Included from page 292

and only be total deadlock. But as the Commission has ruled out any negotiations after September 24, this would amount in fact to failure.

What, I asked Mr Krenzler, would be in the event that he failed to secure agreements with even three or four of the dozen countries on his list? He claimed it was too early to think of alternatives, as energies were concentrated on making success of the forthcoming negotiations. Or that, he would report to the Council Ministers on the outcome of the negotiations. Where he had been unable to reach an agreement he would give the reasons as he saw them.

It would be up to the Council to decide on the next step. It could ask the Commission to resume negotiations, on

the basis of fresh directives, if it thought this would help. Alternatively, the Council could consider whether or not to confirm its earlier, internal decision to withdraw from the MFA.

In the event that it decided on withdrawal, it would be necessary to take unilateral measures before December 31 to restrict imports. These measures would be under GATT, although doubts have been expressed as to whether the EEC as such can take action under Article 19.

In any case, Mr Krenzler assured me, countries which had concluded agreements with the Community would be treated in accordance with these agreements—at least as regards quotas. Other exporting countries would get smaller

quotas. All the quotas would be administered by the EEC, however, with each Common Market country issuing import licences on the basis of its internal regulations. Import licences could be issued on a first-come-first-served basis or the entire quota could be shared out among importers.

Mr Krenzler stressed this was not the outcome he desired. It would weaken the MFA, which was an important multilateral instrument governing world trade. Unilateral measures obviously were not in the interest of the exporting countries. He pointed out that Taiwan, whose exports are subject to such measure as it is not recognised diplomatically by any of the 10 member states, finds it much more difficult to utilise its quotas than the Community's other dominant suppliers.

But the EEC's chief textile negotiator thought wiser counsels would prevail.

SPECIAL ARTICLE

WORLD ECONOMIC ORDER

A strategy of sabotage

By ASHOK MITRA

JAW-JAW is superior to war-war. That, however, may not be saying much: many other things are likely to be superior to jaw-jaw. Consider the case of the inveterate band of professional do-gooders who have made an avocation out of the New International Economic Order. They come from all parts of the world: the developed, the developing, capitalist, socialist, non-aligned. They perambulate around this or that agency of the United Nations, they hop from conferences to colloquia, from colloquia to seminars, from seminars to panel discussions, from panel discussions to round tables. The world has to be changed; it will be changed by this self-assured group of ladies and gentlemen, who have appropriated the committee rooms and conference halls. An avalanche of reports, declarations, statements and resolutions over-whelms us. There is no dearth of funds to sustain their shows. The agencies of the United Nations occasionally fork out money; sometimes, national governments, for their private reasons, also do so. And of course you have that unending fount of tappable resources: the foundations, not just the American ones, several of the genre have now come up in Western Europe too.

With what result?

These do-gooders have been at work, at least for the past two decades, if not more. With what result? Both the gross and the net outflows of external assistance have continued to decline as a proportion of national income in the case of nearly every developed country. The terms of trade, once one excludes the oil-producing nations, have continued to worsen against the developing countries. Loans and credits advanced by the World Bank and its affiliates have increased in magnitude, but so has the extent of officiousness which usually accompanies these disbursements and which is reflected in the various 'tying-in' arrangements whereby the discretion of the recipient countries to use the funds received in the manner they think best is seriously circumscribed.

The International Monetary Fund has opened up a number of new windows for member-countries afflicted by balance of payments problems, but the price extracted by the Fund for these enlarged facilities is often providing to be extraordinarily stiff; no less than a total bartering away of the borrowing country's prerogative of independent economic decision-making. The attitude of the rich capitalist countries to tariffs and quotas remains as rigid as ever. The limit of their generosity has not proceeded beyond the generalised system of preferences announced more than ten years ago. It has made little difference; the products of the developing countries, particularly processed goods, remain the great untouchables in current international trade.

This is the face of reality, which cliché-mongers of the New International Economic Order fraternity have not been able to alter. The Pearson Commission was followed by the Club of Rome declaration, which has been succeeded by the ponderous essays prepared by the Brandt Commission. The words are mellifluous, the intentions are pious, but the syndrome remains unchanged: the ills of the world are many and seemingly untractable; but why bother, leave the problem to us, we are the smart ones, we will counsel together, and all will be better with the world, let us now fix the date of our next conference or round table, let us also decide on the venue and the hotel we would like to be put up in; it is a noble, noble cause, uplifting the conditions of the poor in the wretched, destitute countries, leave it to us, we know a few tricks that others don't.

Cartel of self-servers

It is a cartel of self-servers. The entire business proceeds on the assumption that re-ordering the international economic system is a bit like membership in an exclusive club: come and join us, and we will instruct you on how to pull it off, *via* deals and counter-deals, concessions and counter-concessions. Unfortunately, it

has not worked out that way at all. The false assurance that, wait a while, tenets of the so-called New International Economic Order will soon begin to be served by the rich countries has had a debilitating effect. It has curbed the militancy of the poor nations, and have kept them away from the task of chalking genuinely alternative schematics, by pursuing which they could have improved their lot to a much greater extent than has been possible.

Perhaps this non-performance is precisely the covert objective of these endless rounds of conferences and meetings and reports-writing. They keep you out of harm's way. As a strategy of sabotage, it cannot be faulted. Catch a politicians, civil servants and diplomats from assorted developing countries, mould them, pretend as if you are pandering, for dear life, on the pearls of wisdom they are going to spread, them up in comfortable hotels and them with secretarial facilities; they will now be safe for ever. They will not yell out on you; they will remain responsive citizens of the world, and ditto every insincere, hypocritical banality on economic development and the international order you want to blubber.

Terms of trade

Nearly two decades have been lost in this manner. Whining will not lead to improvement in the terms of trade of poorer countries, it will not allow goods a freer entry into the Western countries, it will not lead to a larger flow of developmental assistance. Saints at short supply in the arena of international relations, where power has to be couched by power, haughtiness by haughtiness. There are one or two small criteria which to judge the attitude of the Western nations towards the premises of the International Economic Order. Ever since the establishment of the two bodies more than thirtyfive years ago, the president of the World Bank has invariably been a citizen of the United States of America, and, similarly, the managing director

International Monetary Fund has been citizen of West Europe. Will the West-governments agree, even on an experimental basis, to an individual from a developing country being named to either of these positions? Will they agree to the reduction of their share in the capital base of the Fund and the Bank by, let us say, 50 per cent and have the latter distributed among the poor countries, thereby surrendering the automatic majority voice that Western governments have in the decision-making process of the two institutions?

Alternative for poor countries

The answer to both questions will be undeniably in the negative. The Fund and the Bank represent money and finance, and therefore the ingredients of power. Any restructuring of the international economic system is meaningless from the point of view of the poorer nations if it does not lead to a shift in the control over international capital resources and liquidity away from the richer nations. The latter is most unlikely ever to agree to such a voluntary abdication of power. The alternative left to the poor countries is to set up a parallel structure of monetary and financial power capable of satisfying the need for liquidity and developmental finance of the countries in Asia, Africa and Latin America. Once you are out of the monetary clutches of the rich West, you can set your terms, you can even set prices for your commodities which those anxious to secure your products are bound to pay up, for they will then know that, even if they refuse to buy, the poor countries will not necessarily starve, they can fall back and subsist on the liquidity which their monetary apparatus will provide; they will wait it out and the rich countries will finally come around and agree to pay the proper price.

It is not difficult to set up such a structure. If only the oil-exporting developing nations could be persuaded to repatriate the funds they have invested in the United States and West Europe during the past ten years and funnel them towards establishing a financial institution exclusively intended to cater to the problems of the poor, developing countries, the situation would be transformed. This is precisely towards where the thrust of the effort should have been directed. The purveyors of the New International Order will be scandalised at the suggestion. They will even be alarmed: their profession will be in danger if the proposal caught on.

AS I SEE IT

Government as captive of private sector

THE fleeing of the ordinary consumers by the manufacturers—whether in the private sector or the public sector—enjoying monopolistic position in the production area or market dominance is common knowledge, which has come to be looked upon as a fact of life about which nothing can be done. This is by no means a specific Indian phenomenon but is to be met with in every country. However, in countries where the private sector dominates there is the additional factor of the domination of the private sector over the government in a manner very much detrimental to the economy and society. How grave is the danger in the USA is reflected in the testimony given by Lt-General Hyman G. Rickover, who left his post as director of the US Navy's nuclear propulsion programme in January last, after 60 years of service in the US military. In his official address to the US Congressional Joint Economic Committee, he warned against the private sector domination of the US government, very much in line with what President Eisenhower had warned his countrymen, while laying the office of President of USA, against the "military-industrial complex." Gen Rickover said, "Political and economic power is increasingly being concentrated among a few large corporations and their officers—power they can apply against society, government and individuals...they often exercise the power of government, but without

the checks and balances inherent in our democratic system. With their ability to dispense money, officials of large corporations may often exercise greater power to influence society than elected or appointed government officials—but without assuming any of the responsibilities and without being subject to public scrutiny."

There are emerging signs that such a domination of the private corporate sector over the government departments is no longer a threat but a reality in India as well. The manner in which the private sector indigenous manufacturers take undue advantage of their monopoly position to dictate terms in respect of the price of the equipment supplied by them to the government departments is not so well known; indeed few are even aware of the existence of such a phenomenon. Often there is collusion on the part of the government officers so that such undue extortion by the private sector suppliers remains a secret on the office file and does not get out.

Indeed but for the very diligent and intelligent review of some of these transactions by the government audit department, even the few instances that have come to be known to a restricted circle of the non-official public also would have remained unknown. Although on the basis of the recommendations of the Stores Purchase Committee, the Ministry of Railways had laid down the policy as early as 1956 that in respect

of lines of manufacture which are the monopoly of a single firm or a group of firms, the degree of price preference to be given would be subject to the examination of costs of manufacture by the government, in a case no cost examination had been conducted at the time of placing any order although the firm had refused to produce authenticated data or documentary evidence to substantiate its demand for escalation in prices. The price of the equipment was raised from Rs 2,20,183 per set in November 1969 to Rs 5,73,45 per set in November 1979—of which the increase of Rs 1,21,880 was effected during 1979 itself. The Public Accounts Committee queried as to why the Bureau of Industrial Costs and Prices (BICP) was not approached for a cost probe whereas such a study of the pricing policy of seamless steel tubes for which M/s Indian Tube Co is the sole manufacturer was conducted by the BICP, the Ministry of Railways replied that the "Tender committee after getting convinced of the increases asked for by the firm on an overall basis recommended the rates for acceptance. Hence a reference to BICP was not felt necessary." The Committee wondered, "how, in the absence of a cost study and authenticated data in respect of escalation of costs, the Tender committee would decide that the escalation in prices asked for by the firm was justified."

Subhash Chandra Sarker

BOOKS & IDEAS

International banking for development

Economic Essays

By A.K.N. Ahmed

Bank of Credit and Commerce International, London, 1982 Pp 128 Price not stated.

Mr A.K.N. Ahmed, at present chief economic adviser of the Bank of Credit and Commerce International, was earlier Governor of the Central Bank of Bangladesh. The seventeen essays included in the volume were written by the author over a period of thirty years. The first essay, "The Basic Problems of Economic Development", written in December 1953, presents the author's view of how the economies of the underdeveloped countries can be developed. He is seen to favour a development programme, relying on the government as the prime mover, of a size which can take care of the growth of population and can act as a starter to increase the marginal saving ratio, address itself to the balanced growth of all the sectors of the economy and provide for deliberate measures for augmenting savings. As an economist and senior bank official in Pakistan, he could not but be aware of the extreme inequality between the two wings of Pakistan — East Pakistan and West Pakistan, which was much richer than the former. In December 1968 he was thus seen drawing the attention of the Government of Pakistan to the need for setting up a special agency to tackle the problems of economic development in East Pakistan. He did not do so directly but came to this recommendation after presenting an assessment of the working of Cassa per il Mezzogiorno (South Italy Development Fund created in 1950 to stimulate the economic development of South Italy). "We, in Pakistan, are committed to eliminate disparity between East and West Pakistan within the shortest possible time. Removal of regional disparity is also one of the socio-economic objectives of Fourth Plan. Can we not take a leaf from the

experience of Italy? Can we not take the issue of economic disparity out of the spheres of mournful recrimination and set up an agency like Cassa per il Mezzogiorno? Such an agency with the assigned task of removing economic backwardness of East Pakistan will be in a better position to strike the problem at its roots.", he wrote (p. 65). In August 1969 he noted Mrs Indira Gandhi's decision to nationalise 14 commercial banks in India to say, "This move is likely to give further impetus to the demand for nationalisation of banks in our country" (Pakistan). While in the context of "the policy of the Government to allow the private sector to continue an important role in our economy" and his doubt "whether the banking system with its large number of branches spread all over the country can be run and managed efficiently under any centralised control", he did not directly recommend nationalisation of banking, the specific measures he wanted the State Bank of Pakistan to adopt involved taking a course of action which would, if adopted, achieve virtually the objective of nationalisation.

The great change in banking in the Third World countries is the adoption by the banks of the responsibility for providing medium and long term finance which had earlier been left to the operation of the capital market, greater flow of credit to the agricultural sector; the small scale sector and the productive potential of the weaker section of the community. Banks have been prompted to adjust their lending policies with the priorities of development decided by the central planning organisation. "Given sensible guidance by central banking authorities and the willing cooperation of banks it is possible to influence the flow of credit to uses that may have somewhat low priority in terms of strict financial return, but the highest desirability in social terms, and that too without unduly compromising

the viability of the banking system as a whole," Mr Ahmed wrote in 1980. But banks — at least in India — have become very vocal nowadays in their criticism of such policy. Indeed the severity of the criticism sometimes amounts to opposition.

Mr Ahmed's hope, expressed in 1980, that an international bank set up in the developing countries would enhance cooperation among them is yet to come true. The recycling of petrodollars has certainly come about; yet the share of the developing countries in the financing of development by petrodollars has been minimal. He himself is fully conscious of this fact. "The plethora of other banks and financial institutions which has come into existence in the past years with the backing of Arab funds need to play a far bigger role in recycling funds to the developing countries than has been the case so far", he writes in another essay (P. 94).

Mr Ahmed's essay on the operation of the Asian Development Bank is a very illuminating one. The immediate task is to expand the size of the soft-lending activities of the bank. He suggests tapping the OPEC investors to draw resources for this purpose.

The last article, "Poverty — Its Causes and Cure" — written in January, 1982 is a substantial contribution which provides a succinct summary of the discussion on poverty. However, there is some scope for factual correction in the article. While, as the author remarks, it is true that India has not solved the problem of poverty, it is far from true, contrary to what Mr Ahmed writes, that "China has been able to conquer poverty". (p. 108). The latest *World Development Report 1982* issued in August 1982 by the World Bank notes that "it is probable that at least 150 million people there (in China) enjoy living standards little better than those of the absolutely poor in other countries". The fact that even such an otherwise well-informed economist connected with international banking as Mr Ahmed carries a very incorrect understanding of the reality in the People's Republic of China is evidence of a terrible international myopia which, so far as it affects the people in the developing

countries (to which Mr Ahmed also belongs), has the most dangerous potentialities, a sample of which was horribly witnessed in this country a few years ago in the blindly destructive activities of the so-called Khalites, who thought that they were giving evidence of their leftism by mouthing utterly idiotic slogans

like "China's Chairman is our Chairman" and "smash the bourgeois educational and health institutions" and so on.

It was perhaps necessary to indicate the names of journals where the articles had originally appeared.

Subhash Chandra Sarker

Problems of agricultural financing

Enquiry into Financing Agriculture by Co-operative and Commercial Banks

S. C. Jain & N. K. Jain

Development Publishers, Kanchan Building, Indore-452 001, (M.L.) Pages 118; Price Rs 50.

Agricultural credit by commercial and cooperative banks has made great strides in the last decade (1970-80). The disbursement of large credit has been possible by evolving financial techniques of project appraisal and financing and supervision of use of funds in all its essentials.

Despite all possible precautions, overdues of lending institutions have been mounting, giving room for concern.

In 1978-79, for instance, the percentage of overdues in the case of direct advances by commercial banks was 48 per cent. Even primary societies financed by cooperatives and commercial banks had overdues to the extent of 45.4 and 47.5 per cent, respectively, to demand. Needless to say, these overdues have blocked capital resources and choked the credit flow. What has gone wrong either in the policies or their implementation? What is the remedy? This is the central theme of the book under review.

The authors have examined the credit programmes, disbursement of funds, methods and techniques of appraisal, field investigations, supervision of credit, recovery of loans and overdues of both the cooperatives and commercial banks and suggested remedies.

Both Dr S. C. Jain, who has been with the Asian Development Bank, and Dr N. K. Jain, who has worked for over a decade with several state governments in their agricultural department, have brought to bear in this study their varied experiences in the field. As in the case of all similar studies, the authors have lamented the lack of uniformity in data on disbursement and

overdues as also in the appraisal and supervision techniques by the financial institutions.

Coming to the suggestions for recovery of overdues, the authors have opined that strict financial discipline should be imposed. The state governments should give their support to the commercial banks and financial institutions in their efforts to recover overdues. In the case of wilful default, it has been suggested that the financial institutions be given necessary permission to publish their names along with loan details in local papers or in the offices of the block/tehsil levels. This method of publishing the names of wilful defaulters is being effectively followed in Nepal, Bangladesh and Thailand.

Yet another method suggested for effective recovery of overdues is the denial of fresh loans by other financial institutions. This could be possible only if a regular exchange of information about borrowers is made between banks and other financing agencies. This will help bring about coordination in loaning and simultaneously in detecting borrowers with overdues.

Raghu

Informative volume on man-made fibres

Man-made Fibre Statistics 1981

Published by Association of Man-made Fibre Industry, Bombay; June 1982.

Man-made fibres constitute an important sector of the textile scene. In India as also the world over, these fibres have received an increasing degree of acceptance by people to meet their clothing needs. They have also tended to replace cotton to a sizable degree inasmuch as people have turned to either pure man-made fabrics or to those made from blending of cotton and man-made fibres.

This volume provides a wealth of data on man-made fibre industry. The comprehensiveness of data covered here could be judged from the range of subjects handled such as organisations representing man-made fibres and filament yarn manufacturers, capacity and production of various types of fibres and yarn as also of their raw materials, imports and exports of final products and the raw materials, excise duties, customs duties and availability and consumption of these fibres. There is also an interesting section of statistical tables.

The volume has apparently been a painstaking job on the part of the publishers. All subjects covered here have been dealt with in detail and relevant information has been provided. For example, under the subject of capacity, it gives not only installed capacity of the existing units but also capacity covered by additional licences and letters of intent. It also gives relevant unitwise information such as the year of commencement of production for each unit.

Under the chapter on production, varietywise production data of fibres and yarns have been given on a time-series basis, starting mainly from early sixties, but in some cases even from early fifties. Denierwise information has also been provided. Besides the volume provides time-series data on subjects like prices, imports and exports and fiscal imposts on the industry.

The data given in this volume on world capacity and production of man-made fibres and their raw materials would be of particular use to those interested in this industry. In all cases, these data have been provided both countrywise and year-wise.

Abhijit Doshi

BOOKS RECEIVED

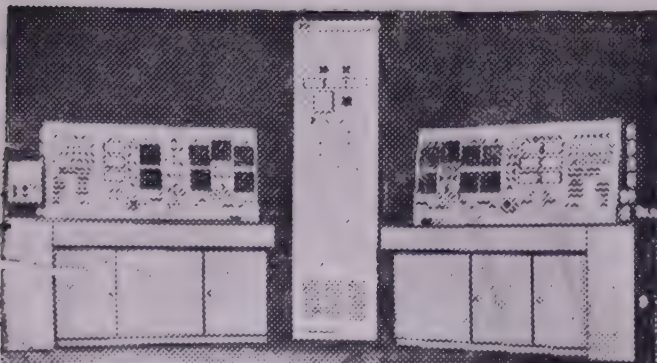
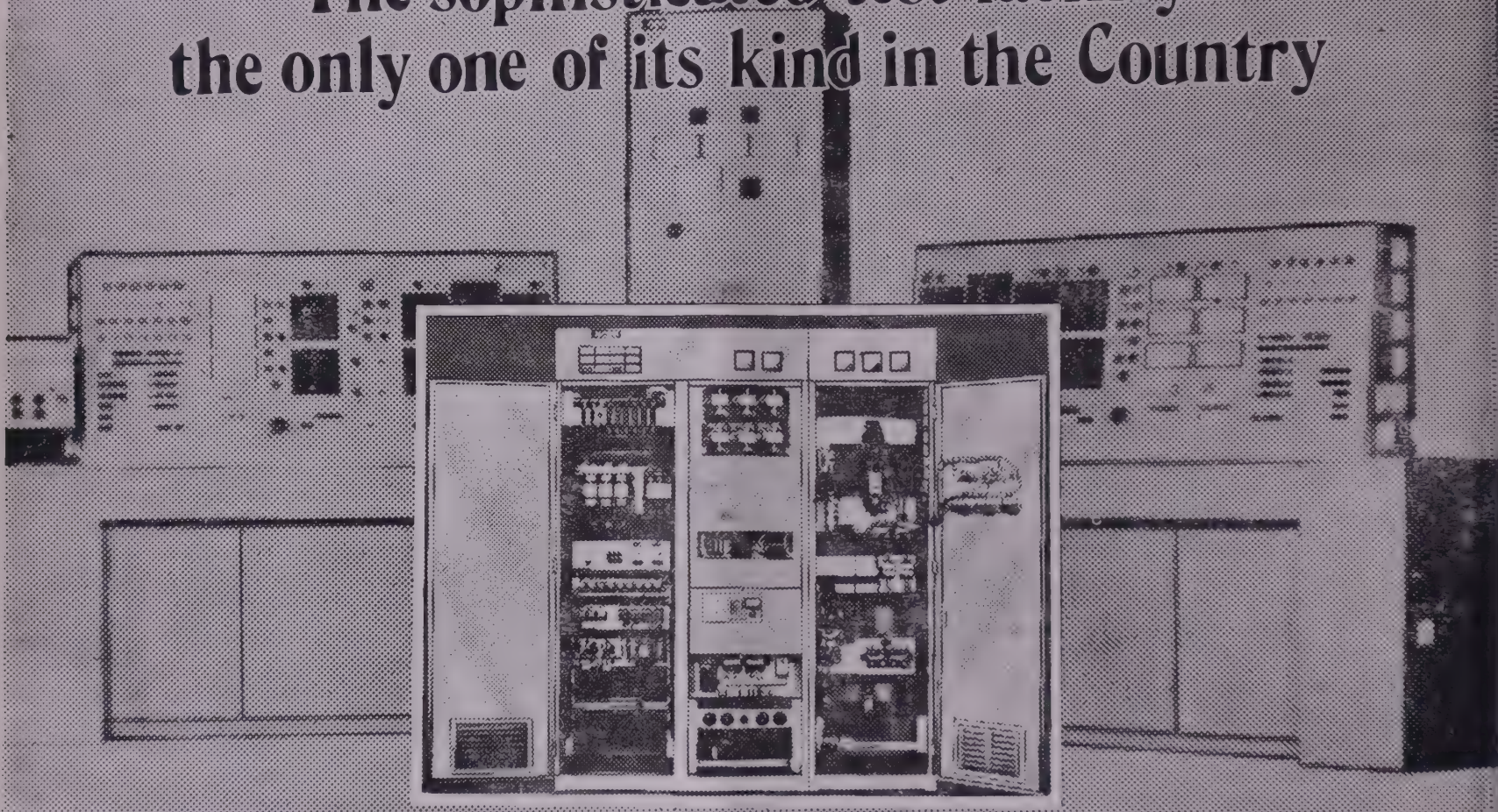
Taxman's Direct Taxes Law and Practice Covering Income Tax, Surtax, wealth Tax, Gift Tax and Estate Duty 1982-83 by Dr Vinod K. Singhania, assisted by Jeewan Singhania, published by Taxman's Publications (P) Ltd, 1871, Kucha Chelan, Khari Baoli, Delhi 110 006; pages 805; price not mentioned

Towards a Theory of Import Substitution Exchange Rates and Economic Development by Vinay Bharat Ram, published by Oxford University Press, P.B. No. 31, Bombay 400 001; pages 193; price Rs 120

Towards a Political Economy of Urbanization in Third World Countries Edited by Helen I. Safa, published by Oxford University Press, Post Box 31, Bombay 400 001; pages 315; price Rs 45

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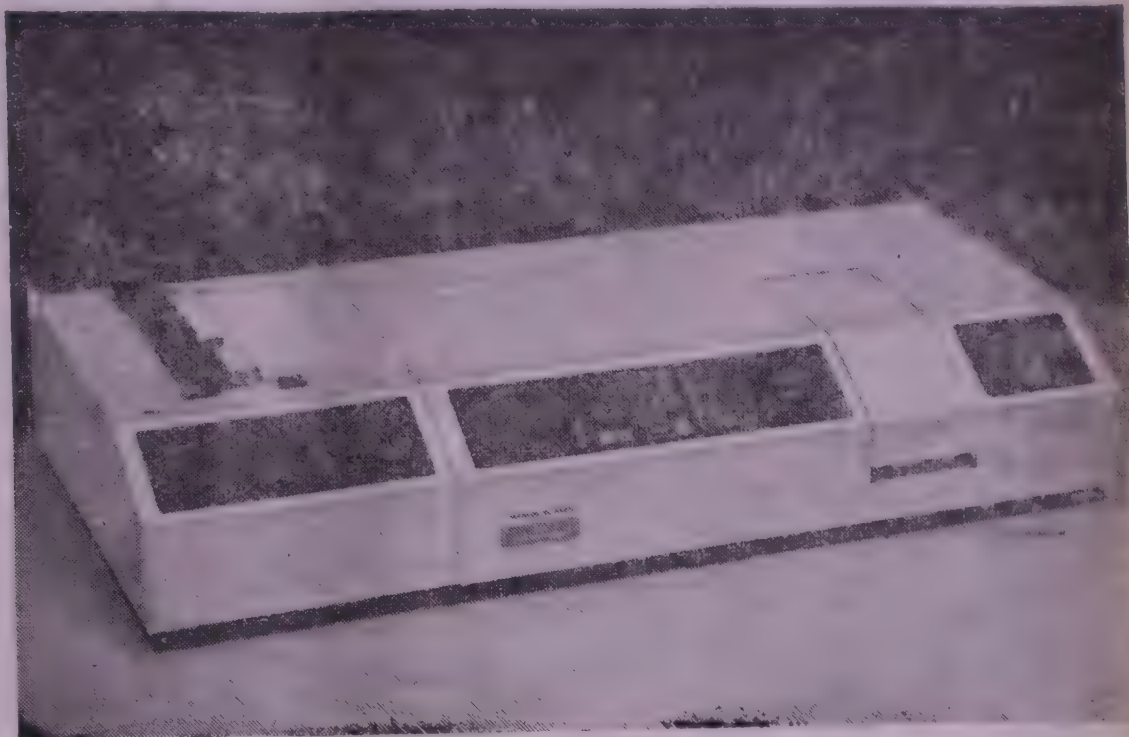
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Application of microcomputers to optical instruments

by A Special Correspondent

RECENT advances in microcomputers have been truly amazing, resulting in enormously enhanced functions of optical instruments using microcomputers. In some instruments, most of the conventional control circuits and analog circuits have been replaced by microcomputers. In others, complex functions entirely unthinkable with traditional technology have been realised by using built-in microcomputers. How did the microcomputer influence optical instruments? What kind of new ideas and progress did it bring them? An attempt will be made to answer in this article these questions with specific reference to spectrophotometers with built-in microcomputers.

Owing to its outstanding calculation functions, economics, compactness, and high reliability, the microcomputer has found rapid acceptance in all fields of the electronics industry. Much of the same can be said of the scientific instruments

including optical scientific instruments, where various 4, 8 and 16 bit microcomputers are being applied. Particularly notable is the application of 8 and 16 bit units with reinforced calculation functions. This tendency is supported by the fact that data processing characteristically constitutes the main part of the instruments in this field. Application of the microcomputer in this area, of course, directly results in improvement function. Not only that, it makes possible advanced automation which combines data or signal processing and control of the instrument itself. Also, monitoring of the instrument with improved function cannot be expected without a microcomputer.

Spectrophotometer

As example of optical instruments with built-in microcomputers, let us take up spectrophotometers using 16 bit microcomputers and see how the functions have been

improved and what kind of new concepts have been developed.

In spectrophotometry, large computers and minicomputers have long been used chiefly for on-line or off-line data processing. Since the advent of the microcomputer, application has not been limited to processing of data from optical instruments, but has been extended to control of instruments and signal processing inside instruments which had been performed conventionally by analog circuits. Thus, performance, operability and reliability have been significantly improved over analog instruments.

The basic roles of a built-in microcomputer in a spectrophotometer are summarised as follows:

1) **Control functions:** Wavelength scanning; automatic light source switching; control of slit width and detector sensitivity; etc.

2) **Signal processing functions:** Smoothing; baseline correction; calculation of %T, ABS and concentration; derivatives; etc.

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3) **Communication functions:** key to switch entry; data presentation; warning display; communication with external systems; etc.

For wavelength scanning, a stepping motor controlled by microcomputer is used, to ensure accurate and fast scanning. Photometric signals from detectors are A-D converted after pre-amplifier. Then, by a timing signal, they are differentiated to reference signal R, sample signal

S, and zero signal Z, and stored in memory as such.

From these values, the microcomputer calculates transmittance $T = (S-Z)/(R-Z)$ and absorbance $ABS = -\log T$. With these photometric values as signals for the Y-axis and wavelength as signal for the X-axis, output is made to the X-Y recorder, to obtain absorption or reflection spectra. In order to make the R or S value fall within the specified range, the microcomputer outputs control signals for slit width and high voltage for photomultiplier.



Perkin-Elmer Model 684 Ratio Recording Infrared Spectrophotometer uses a microcomputer control for control of monochromator and scan motor.

Prime importance of glass

by A. S. LELE

GLASS apparatus occupies a position of special importance in the field of laboratory equipment. Glass vessels have the unique property of being resistant to the action of most of the chemicals which are handled in a laboratory as well as in industry.

The manufacture of small items such as beakers, test tubes etc, was started in our country nearly 50 years ago. This industry did not make much progress for quite a few years. It is only during the last ten to fifteen years, that full fledged and large scale manufacture of glass apparatus and equipment has come into existence.

The chemical composition of glass used for forming various types of apparatus has to be special. The glass must have a very low coefficient of expansion to make it resistant to heating and cooling. The glass is universally used for forming apparatus is termed borosilicate glass.

Manufacture of glass equipment for the chemical industry has made spectacular progress during the last few years. This has been partly due to the boom in the manufacture of chemicals, drugs and dyes in our country. It is a well known fact that the manufacture of many chemicals, contact with metals has to be scrupulously avoided. This is the reason why all-glass equipment holds a position of prime importance in the field of chemical manufacture. The transparency of glass equipment is an added advantage over metal equipment. The operator can actually

see the progress of the reaction. This gives him a better control on the whole process. Any likely accident due to boiling over of the reactants or due to building up of pressure can be easily avoided.

Small sized apparatus

In the manufacture of small sized apparatus which is commonly

used in quality control and clinical laboratories, the emphasis has necessarily to be on precision. Burettes, pipettes, volumetric flasks, specific gravity bottles and special equipment designed for a specific analytical purpose, have to be very accurately calibrated. Small containers such as breakers and conical flasks must have a really flat base so that they remain stable when placed on the working table. The mouth of the container has to be well formed, so that contents can be poured out without spilling. Precision and accu-

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Mr Lele is managing director of Picaware Pvt Ltd.

racy have even greater importance in highly specialised fields such as forensic laboratory work or pesticide residue analysis.

Proper annealing

In the field of manufacture of large equipment, meant for use in a manufacturing process, prime importance is given to proper annealing of all glass parts. Glass is fragile and liable to break due to any mechanical shock. This drawback cannot be overcome by any means, because of the inherent property of glass which cannot be altered. However, breakage due to heating or cooling

can definitely be prevented by proper and careful annealing of all glass parts. The user of glass equipment has no means to judge whether the glass is properly annealed. That is why the responsibility of supplying properly annealed equipment rests on the manufacturer alone. Fortunately, instruments to test whether a piece of apparatus is properly annealed are available. The manufacturer can therefore, ensure that his equipment is properly annealed, before he supplies the same.

The fact that glass is fragile introduces another element of import-

ance in the proper use of glass equipment. The whole assembly has to be housed in a well designed rigid metal structure. Any reputed manufacturer of glass equipment must be in a position to supply prefabricated metal structures to house every type of assembly.

The glass apparatus and equipment manufacturing industry has a bright future. The manufacture of chemicals is definitely on the increase. It follows that more and more glass equipment will be needed in the future.

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Microprocessors in gas chromatography

D. F. K. SWAN, and R. J. HUNT

A TYPICAL microprocessor system is shown in Fig. 1 and can be divided into several components. These components are connected by a system 'BUS' which allows the microprocessor to communicate with the other components of the total system. The main components of any microprocessor system may be listed as follows:-

- the processor itself and its clock circuits
- program memory (PROM)
- read/write memory (RAM)
- timing and counting circuits
- input and output communication (I/O)

Microprocessor

The microprocessor is driven by the system clock and is the controller of the system bus. It obtains data from the system bus, from the read/write memory or the input devices, uses its programme to make decisions which it then outputs, again via the system bus, to the output devices. The incoming data are mostly processed inside the processor in registers (locations within the processor capable of storing numbers) by use of its arithmetic and logic from a relatively small set of instructions—for example,

- move data from a system location to a register and vice versa.
- move data from one register to another.
- perform simple arithmetic operations e.g. add, subtract etc.
- change, either conditionally or unconditionally, the address of the next instruction to be executed.

The microprocessor controls the movement of data around the system by means of 'addresses' for specific memory locations. The processor outputs an address on to the system bus, then if reading from a device, for example an input or programme, outputs a 'read' command. It then waits for the device to put the contents of the addressed location on the system bus, and reads the system bus. The data having

circuits a counter timer chip (CTC) is used and may be programmed so that it provides an interrupt every 1/110 second (this rate is used to transmit data to a teletype). Eleven of these periods are counted in RAM, producing a 1/10 second signal. This, in turn, is counted to produce 1 second, 6 second etc periods up to

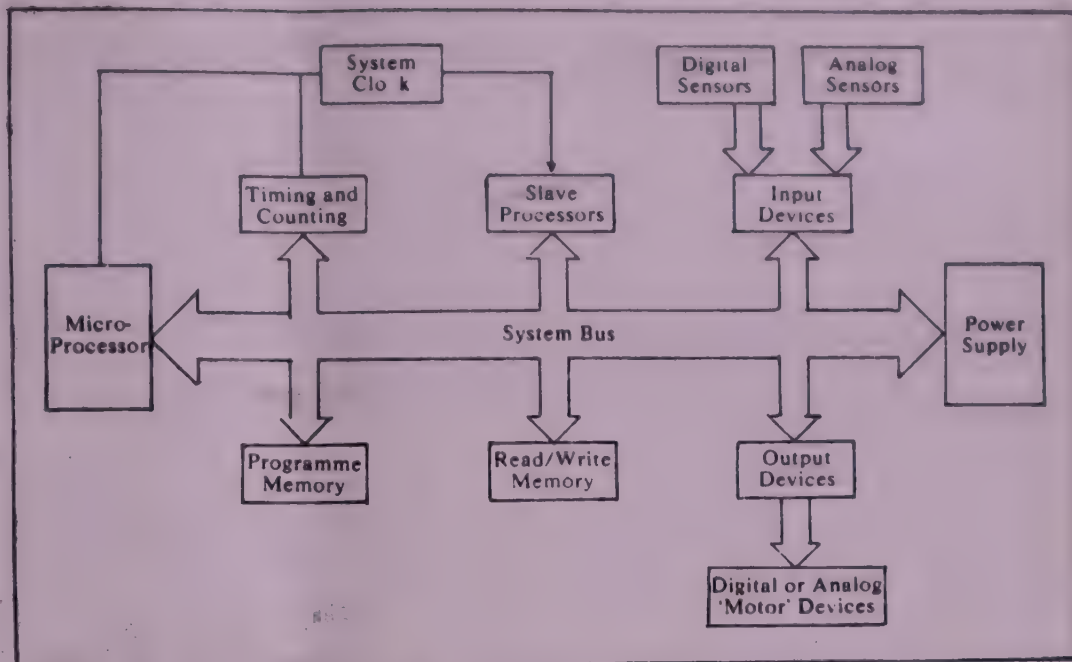


Fig. 1. Microprocessor Circuit

been transferred from an address to a register in the processor are manipulated as required, and the result outputted to another address by a 'write' command.

Programme memory

The programme memory is the set of instructions and sometimes some default data, which are executed, in order, by the processor to enable it to carry out its tasks. An instruction is first read from the PROM, then decoded, then acted upon. After this the next instruction pointed to is read and executed and so on through the programme.

Read/write memory

Working parameters and data from the input devices are stored in the read/write memory. Data in this memory can be changed by the processor when required, as distinct from the data in PROM which cannot. RAM is also used for intermediate values and working space when the processor has insufficient internal registers to carry out a task.

Timing and counting circuits

Quartz crystal oscillators are used as clocks from which the basic 1/10 second, 1 second, 1/10 minute 1 minute intervals can be easily derived by the programme. In Z80

a year in the case of the Series 304 chromatograph.

Additionally the CTC can be used as an input counter and this is what is done in CDPI. The CTC has four separate channels, two of which are used to count pulses from a voltage to frequency converter which converts by CDPI into a frequency 0-MHz. Every 1/110 second, these two channels are read and the number of pulses received since the last reading is computed by difference.

This number is then used by the processor to compute 'slope' and detect peaks etc.

Input and output communication

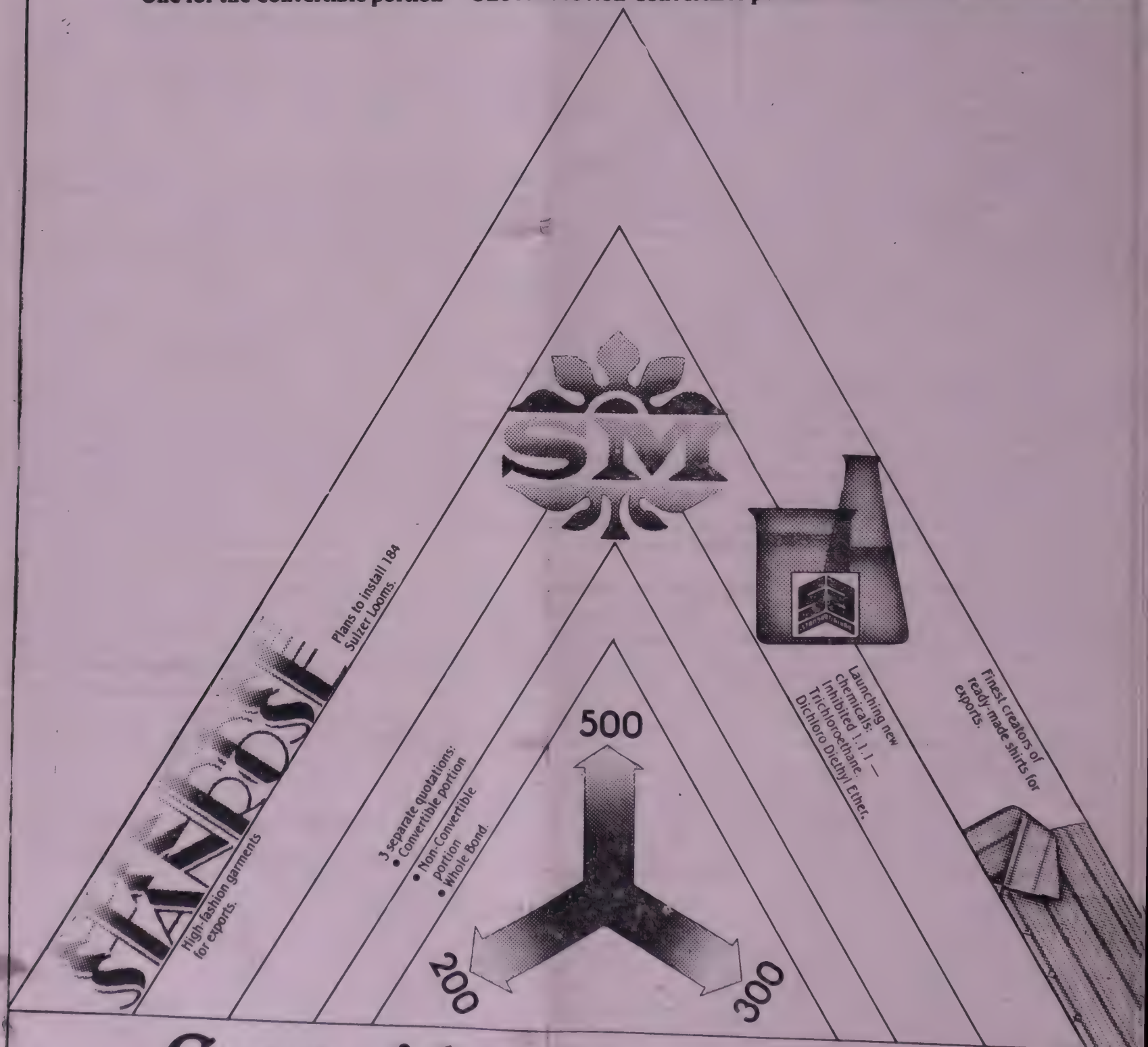
Microprocessors communicate with other parts of the external circuits by input and output communication. I/O occurs via a special components in the processor circuitry which protect the processor from the electrically noisy environment of the rest of the instrument and sometimes have enough intelligence themselves to handle the I/O, freeing the processor to continue with other tasks.

These then are the essential components in a microprocessor system. However, without a programme the microprocessor would be unable to do anything, and it uses the programme to direct data from one area

Mr Swan is product manager and R. J. Hunt is group leader, Pye Unicam Ltd.

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Return on Rs. 500 for one year		122.50
Percentage of return per annum till conversion		24.50
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Effective investment after conversion (Face Value of the Bond, viz. Rs. 500, less Rs. 310, the sale proceeds of one Equity Share available on conversion)		190.00
Interest income on Non-Convertible portion of the Bond, viz. Rs. 300 at 13.5% per annum		40.50
Percentage of effective yield per annum till redemption		21.32

FINANCIAL HIGHLIGHTS

	For the year ended 31st March (Rs. in lacs)						
	1975	1976	1977	1978	1979	1980	1981
Paid-up Equity Share Capital	400.00	500.00	539.02	539.02	646.82	646.82	646.82
Reserves & Surplus	1012.18	1054.52	1118.96	1258.76	1601.90	1999.11	2502.91
Net Fixed Assets	1427.30	1711.06	1669.54	1697.61	2028.12	2476.87	3543.92
Sales and other Income	5566.11	5925.30	6674.02	7392.71	7965.62	9095.34	10448.64
Gross Profit	579.49	600.96	606.54	703.60	804.32	1075.78	1222.25
Net Profit after taxes	158.63	200.26	189.06	236.11	328.31	510.45	630.71
Dividend paid	80.00	100.00	101.95	107.80	129.36	142.30	142.30
Per Equity Share of Rs. 100							
i) Net worth Rs.	332.87	290.77	307.59	333.53	347.66	409.06	486.95
ii) Dividend (%)	20	20	20	20	20	22	22
iii) Market price							
High Rs.	585.00	565.00	493.00	515.00	458.00	614.00	675.00
Low Rs.	459.00	437.50	371.00	385.50	352.00	363.00	356.00

Bonus issues made by the Company during the last 10 years

Year	Ratio	Year	Ratio
1972-73	1:1	1978-79	1:5
1975-76	1:4	1981-82	2:5

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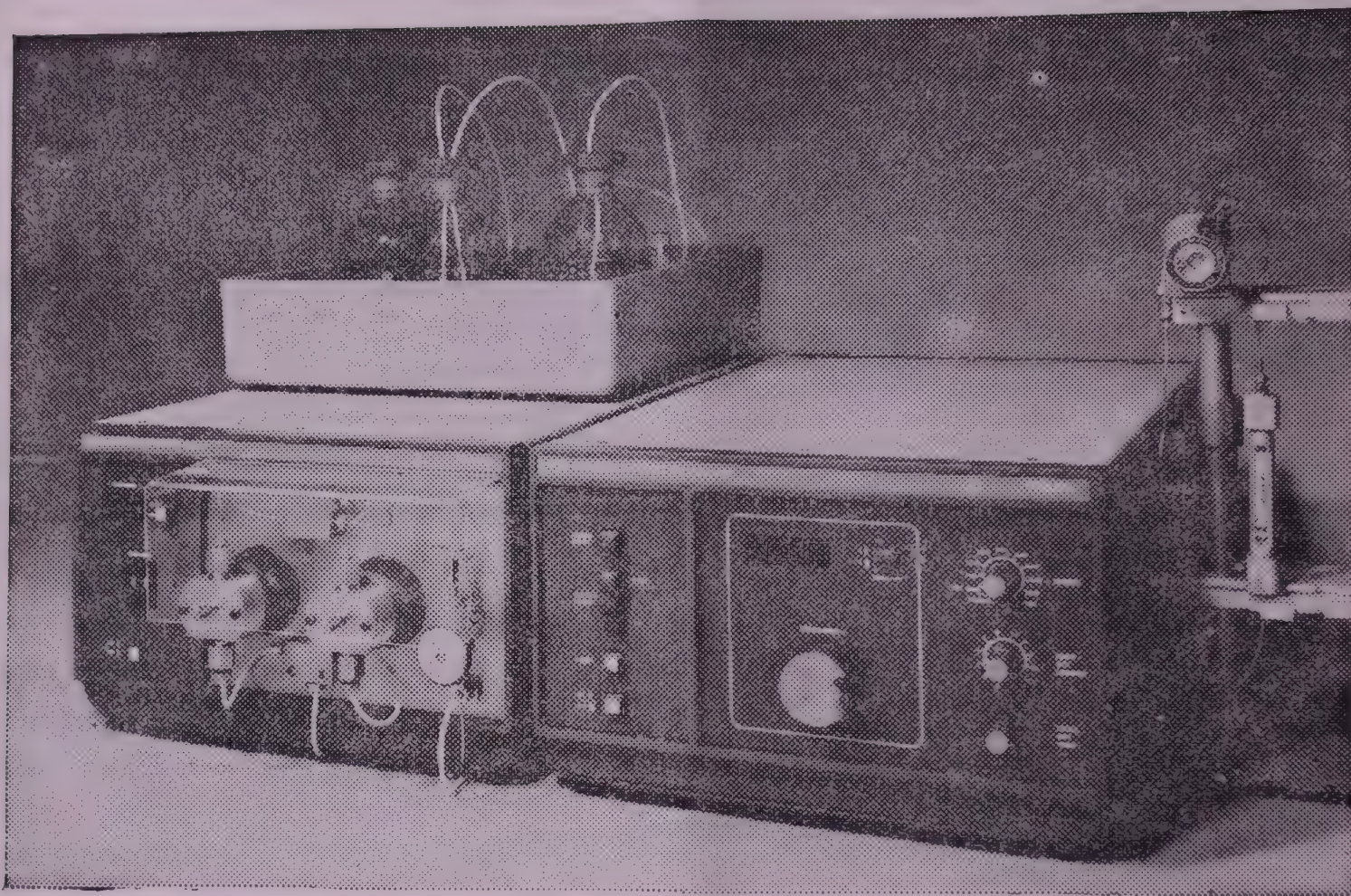
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another, to calculate, to make specific decisions — in fact to control the instrument.

A programme essentially consists of two parts:

- (a) the data definitions
- (b) the tasks.

The data definitions define what data are to be stored and where. These values are used until the instrument is instructed to use other values entered via the keyboard by the user.

The tasks are a series of instructions in binary form which the microprocessor decodes, and uses to tell how to deal with the data. Tasks within a programme generally are of two types — foreground or background tasks. Foreground tasks are those which must be executed as soon as possible. They are generally initiated by interrupt, and may either be dealt with immediately in an 'interrupt routine' or may be stacked in a priority list by means of a 'scheduler' — itself written in to the programme. Naturally some foreground tasks are more important than others — for example, a reaction to an electrical power failure is more important than getting the 10 second timer correct. To deal with these conflicting requirements, the interrupts are put in an order of priority.

Background tasks

Background tasks are those which, although they must be completed within a, usually limited, timescale, are not vital to complete immediately. For example, in the Pye chromatograph, the computation of actual temperature in an oven by the Callendar — Van Dusen equation and calculation of the required power output to the oven, must be completed by the time the next power value is to be output and is not important that it is done immediately on the receipt of resistance value. Background tasks can be interrupted by foreground tasks, usually without detriment, providing they are completed by their deadline.

Writing the programme and then 'debugging' it (that is getting it to do only what is wanted) is a considerable investment and is a major task in the development of an instrument which did not exist with analog circuitry. In many cases, the debugging process may take longer than writing the original programme. Specialised equipment is available from major processor manufac-

turers to facilitate debugging. In an open loop system, such as CDPI, the task is easier since the timing of the outputs is not critical and so processes can be run at reduced speed. However, in a closed loop system, the timing of the outputs is critical and it is essential that debugging takes place at the full working speed of the processor.

There are several levels at which the programmer can write. At the lowest level, the programme could be written in 'machine code' — that is, the actual binary numbers which the processor will use for its control. More sophisticated is the 'assembly language' which is a set of short words enabling the programmer to see more easily what a particular part of the programme is doing. 'High level' languages, such as PLZ, CORAL, languages based on PASCAL, make programming faster, but may not always be as efficient as using assembly language. Their advantage is that they can be used with different processors.

Provided that the programme has been well written, and the hardware flexibility designed, any deviations from specification needs, can often be removed by software changes only. This is also true of modifications required at a later date to update the instrument. However, modifications to the software are not to be undertaken casually. They may be as time consuming as the original programme writing, since generally they may interrupt or modify the programme flow. The modified programme would have to go through a full debugging sequence including both the new and existing features.

When developing complex microprocessor circuits it is essential to use the power of microprocessors to check, refine and appraise the performance of the circuit being designed both in the development and production phases of the instrument life. Indeed, Pye Unicam developed a

specialised processor based 'Peak Simulator' to test the performance of CDPI. However, for faults in the users laboratory some provision must be made to allow the user to carry out some fault diagnosis.

When a fault occurs on the processor board itself, it is much more difficult to design a programme to identify it since the fault may occur in that area of the board where the programme resides. For this situation, a technique called 'Signature Analysis' may be written into the programme. When it is needed to use Signature Analysis, a bank of switches is set to select a specific section of programme. This section of programme is written so that, with a Signature Analyser, a series of signatures can be obtained for various points in the circuit. When a correct signature is obtained, sections of the printed circuit board can be cleared as functioning. Changing the switch bank setting, selects another section of the programme, producing different signatures and testing different functions within the pcb. As soon as an incorrect signature is obtained, the faulty area can be located and the fault can be pinpointed, often down to one faulty component.

An open-loop system CDPI computing integrator

The system principles are shown in Fig. 2. The input to CDPI is an analog signal in the range 0-10 volts from the chromatograph. Peaks are detected and their heights or area computed. After the analysis is completed, the results are either normalised to 100 per cent or to some other set percentage which may be the percentage of internal standard in the sample. Printout is on a built-in printer and provision is also made for the results to be transmitted to a teletypewriter.

The input signal is first converted to a frequency by means of a

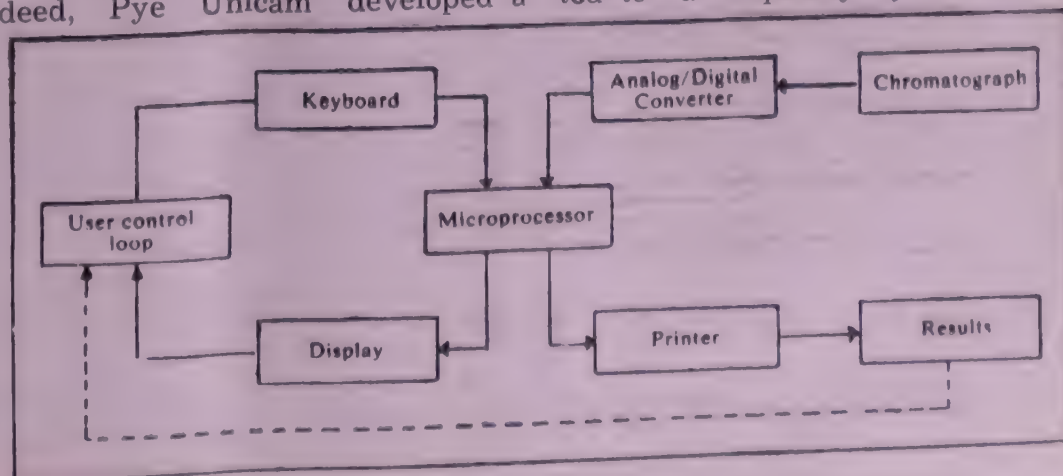


Fig. 2. CDPI System Principles

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voltage to frequency converter. This means of conversion is chosen to improve common mode noise rejection. The resulting frequency is sent to the channel of the CTC, which counts every time a pulse is received. This channel is connected to a second channel to give greater resolution. An interrupt is generated by the third channel of the CTC, once every 1/110 second. At this time, the processor reads the figures from the first and second channels of the CTC. There is no interruption to the counting during this operation because it can be done 'on the fly'. The processor subtracts the new reading from the old (at the beginning of the 1/110 second period) and corrects if necessary for overflow.

Eleven of these differences are added together to give a 1/10s. data sample. According to the expected width of the peak, data samples are grouped into bunches. The bunches are used to compute digitally the slope of the input signal by means of the five-point Savitsky-Golay equation.

When the slope exceeds a preset level, a peak is detected and a peak record is started. At the top of the peak, a quadratic interpolation is used to identify the true peak maximum value and time as opposed to reporting the values of the closest data bunch. The width of the peak at half height is measured for a possible update of the number of data samples in a bunch. Valleys above and below baseline, tailing peaks, and solvent peaks are marked.

When baseline is again found, at the end of the run or when the peak store is full, the baseline follow-up programme is initiated. This computes the best baseline under the peaks found, corrects the areas of the peaks above the baseline, and then marks each peak with a code so that the user can tell how the baseline has been allocated.

Closed-loop system

The system principles of Pye Series 304 chromatograph are shown in Fig. 3. The three ovens in the instrument are quite different in design due to the different requirements of the columns, injectors and detectors, and each oven has a different requirement for the degree of control and accuracy temperatures.

Typically an accuracy of $\frac{1}{2}$ of the temperature in degrees Centigrade is obtained down to a limit of 1°C — almost the accuracy of the resistance thermometer. This accu-

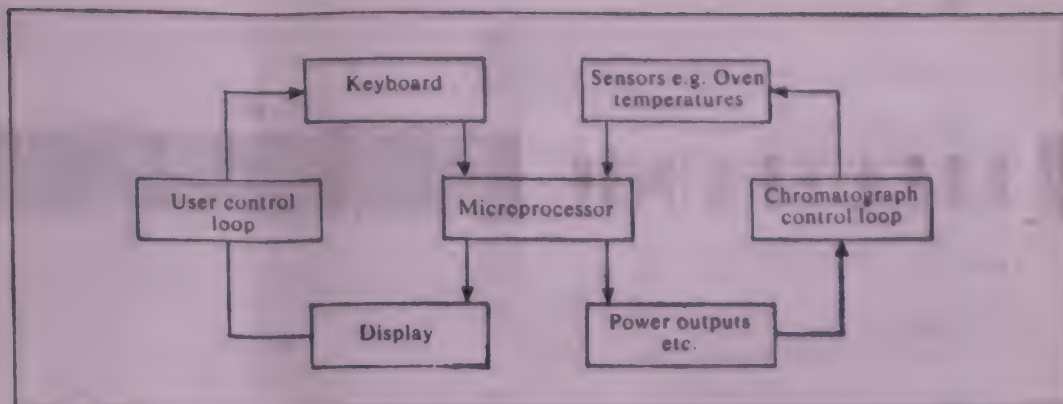


Fig. 3. Series 304 System Principles

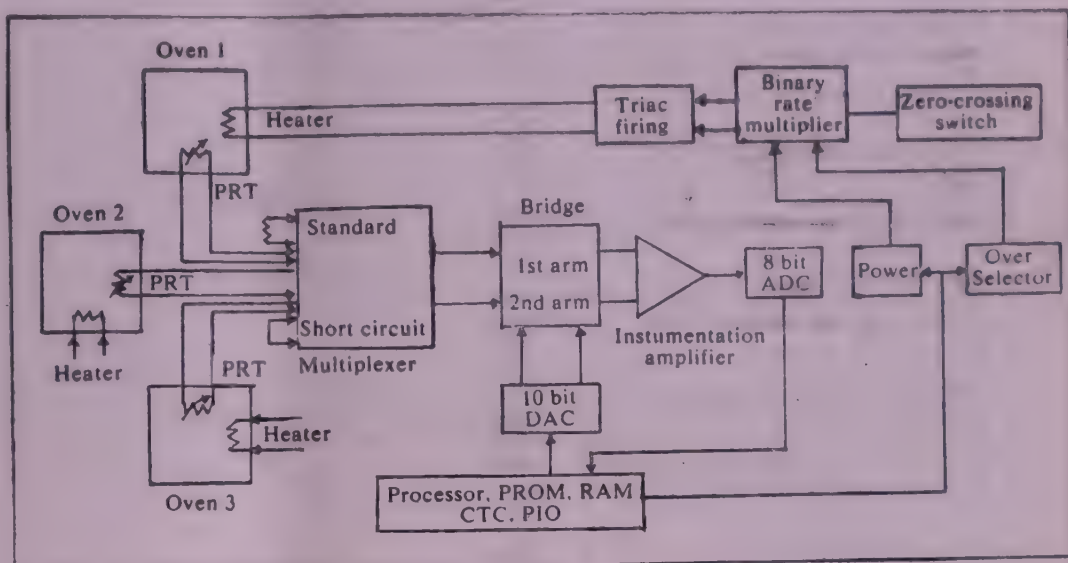


Fig. 4. Chromatograph Control Loop

racy is achieved by the use of a pseudo bridge network in the resistance thermometer measuring circuit (Fig. 4). The microprocessor sends a 10 bit signal to the DAC as a 'coarse range' estimate. A signal is received back via the instrumentation and 8 bit ADC of either 'too high' or 'too low' (i.e. out of range of the 8 bits) or an 8 bit value for the offset from the centre. When an 'out of range' reading is obtained, the processor adjusts the coarse range estimate and sends a new value.

A standard resistor and short circuit are used to convert the in-range value to ohms, and the value of temperature is then computed, from the Callendar-Van Dusen equation.

The value of temperature is compared with the set value for the oven, and a difference obtained. This difference is used to compute the required power for the oven, which is then output via the power line to the binary rate multiplier.

A zero crossing switch provides pulses to the rate multiplier which feeds the triac firing circuit for the oven at a rate proportional to the power output value received.

The oven cools or warms as appropriate, changing the value of the resistance thermometer and completing the loop. These calculations are done for each oven once every second.

In this manner, very precise control of the ovens can be achieved at accurate temperatures and in temperature programming, the clock can be used for very accurate timings. The built-in three level matrix programme allows very flexible programmes with automatic cooling by means of a ducted vent system.

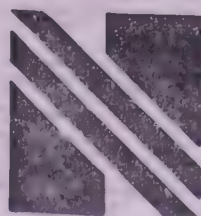
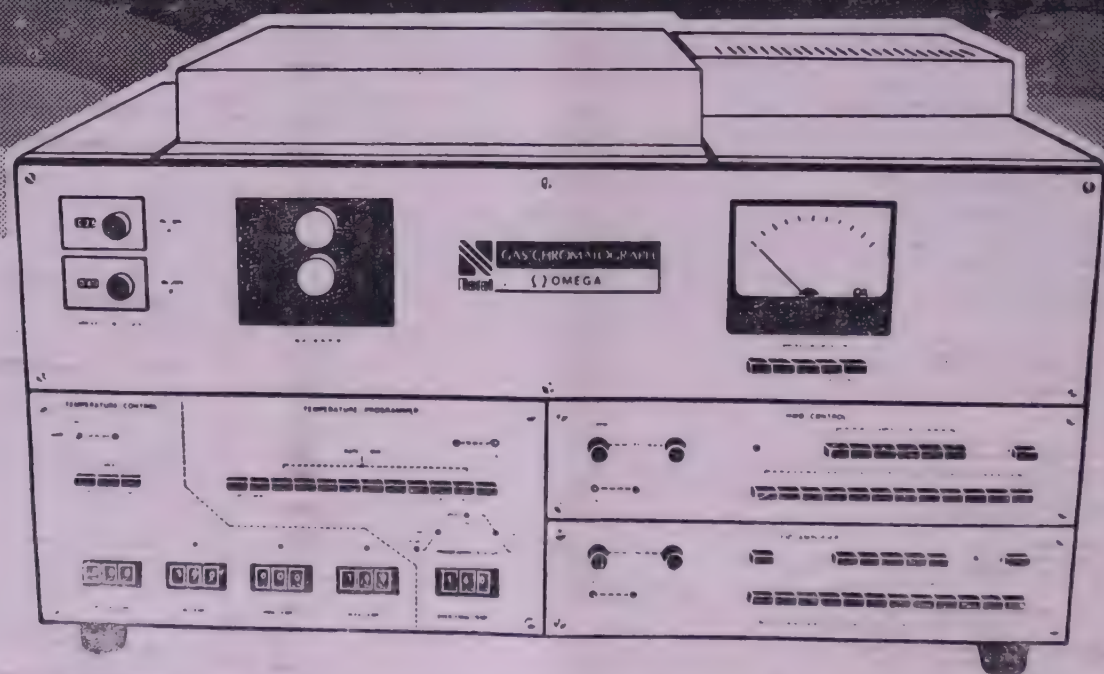
Conclusion

The microprocessor and associated circuits provide a flexible framework within which to design instruments. In both closed-loop control and open ended data reduction, they offer many advantages over analog and hard wired techniques, not the least of which is the ease of modifications to programmes. In both the CDP1 computing integrator and Series 304 chromatograph the benefits to be obtained from microprocessors have been exploited to the full with accuracy, flexibility, speed and on-board diagnostics.

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POWER SITUATION

Power shortage grows more acute

THERE has hardly been any improvement in the overall power situation in the country. While the situation in Orissa and Rajasthan continues to be bad, the situation in West Bengal has worsened.

The state-wise power situation is also the restrictions on the use of power are given in the following paragraphs.

Andhra Pradesh: Power supply was disrupted in several centres in the State due to alleged sabotage by the employees of the State Electricity Board on August 5. A section of the State Electricity Board employees has been on strike since August 2.

Bihar: The four-hour restriction on industrial consumers during the peak period continues. The categories and industries exempted from this restriction include; the areas served by the Damodar Valley Corporation, continuous process units, Heavy Engineering Corporation, Ranchi; Hindustan Fertiliser Corporation, Barauni; Indian Drugs and Pharmaceuticals Ltd, Muzaffarpur; Uranium Corporation of India, Jaduguda; printing presses of daily newspapers and cement manufacturing units having electric smelting furnaces.

Delhi: The Union Energy Ministry has decided to call a team of foreign experts to study the power distribution system in Delhi and suggest measures to strengthen the system.

Haryana: There were no notified power cuts in the State. However, the restrictions on peak load demand of industries from 6 p.m. to 9 a.m. in addition to one-day weekly off, continues.

Jammu & Kashmir: A power cut of five hours a day for small units and six hours for domestic consumers continues.

Kerala: Power supply was disrupted many areas in the State on August 5, due to the one-day token strike observed by the State Electricity Board employees.

Madhya Pradesh: Power cut upto 50 per cent on maximum demand in all high-tension industries as also other restrictions and load-sheddings continued in the State.

Maharashtra: The 30 per cent demand cut and 35 per cent energy cut on

general industries and 22.5 per cent demand cut and 30 per cent energy cut on continuous process industries continue in the State.

Orissa: The statutory power cuts on 22 major industries in the State continue. With hardly any rainfall in the catchment areas so far, the water level in the Balimela reservoir was five feet below the minimum draw-down level of 1,440 feet and that of Machkund nine feet below the draw-down level of 2,685 feet.

Punjab: The State Electricity Board imposed a three-hour power cut throughout the State during the week following low generation of power by the power plants.

Rajasthan: The State continues to be in a deep power crisis as both the units of the Rajasthan Atomic Power Station are out of operation. It was reportedly meeting its requirements with supply from the northern power grid. The Union Government has decided to provide a gas turbine of 20 mw capacity for the Rajasthan-based units as an immediate short-term measure. Besides this, the Union Government has also decided to instal a captive thermal power plant of 20 mw capacity near Chittorgarh to provide uninterrupted power supply to the State-based units.

Tamil Nadu: The State was reported to be facing a power crisis because of scanty rainfall resulting in poor storage of water in the hydel reservoirs.

Uttar Pradesh: There were no notified power cuts in the State although peak period restrictions on industries continue.

West Bengal: There is no respite from the grim power situation in the State as there has been a drastic fall in the power generation by the Bandel and Santaldih power stations. To cope with the shortage, the State has no other alternative but to impose heavy power cuts and frequent load sheddings in the State. Meanwhile, the State Government has sent an urgent message to Mr A. B. A. Ghani Khan Choudhury, Union Energy Minister, requesting him to arrange for power from any agency to the State to solve the current power crisis.

The overall power generation in the country in July 1982 at 11,079 million kwh was higher by six per cent than that of 10,453 million kwh in June 1982 and 10.4 per cent higher than that of 10,032 million kwh in July 1981.

The region-wise increase in thermal power generation during July 1982 was: northern region — 55.1 per cent, north-eastern region — 32 per cent, southern region — 17.3 per cent, western region — 16.8 per cent and eastern region — 10.5 per cent.

With the July 1982 figure, power generation during the first four months (April-July) of 1982-83 totalled 42,787 million kwh which was higher by 6.8 per cent than that of 40,055 million kwh during the corresponding months of 1981-82.

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SPECIAL REPORTS

MRS GANDHI'S VISIT

Boost for Indo-American trade

From HASMUKH SHAH

WASHINGTON

THE Prime Minister, Mrs Indira Gandhi's 9-day successful tour of the United States, is construed here as a turning point in the Indo-American relationship. Analysts here say that Mrs Gandhi has been successful in achieving her twin goals—to reverse a decade of cool relations between India and the United States and to create a better image of India in the West.

The immediate positive outcome of the Gandhi visit is expected to be found in the expansion of Indo-US trade which is currently running at \$3 billion a year. The new, liberalised economic policies of the Indian Government appear to encourage Western investment. The rigid gov-

ernment controls in India have for years discouraged Americans and others from trying to tap the potentially huge Indian market.

Mrs Gandhi's face-to-face talks with leading American businessmen, industrialists and bankers have created a better impression about India and Americans now look upon India as a potential ground for investment. In fact, a delegation of American businessmen is to visit India in near future for the exploration of better business ties and making more investment in India. Americans are also warm to India's need for high technology and know-how. Many multinationals are seriously thinking of either expanding their operations in India or making an entry in

the country in a big way. The American Ambassador, Mr Harry G. Barnes, is also visualising a big increase in Indo-US trade.

The Reagan administration is pleased with the Indian stance to diversify its arms needs. Pentagon officials say that the US in recent years had offered to sell India more arms, including artillery, but that India had not responded. But now India is seeking weapons from diverse sources, including France and Britain. India may buy one billion dollars worth of arms from the United States. Bowen McLaughlin York Company of York, Pa, is currently negotiating with India for the sale of artillery, ammunition and equipment.

One of the major aims of Mrs Gandhi was to convince the United States to agree to give more financial aid to the international financial agencies. But the Reagan Administration has told India that it should turn for its future economic development to commercial financing on the world market rather than relying heavily on US-backed concessional loans. Mrs Gandhi reacted to this by saying that such a policy "has its limits" and could lead to the piling up of a large and burdensome private debt.

Similarly, the differences still remain between India and the United States on political, military and economic fronts. For example, the supply of F-16 fighter planes to Pakistan and establishment of US military bases in Indian Ocean are still dividing the two nations.

But the latest Gandhi visit to the US has convinced the Americans that India is willing to start a new chapter in Indo-US relations and there is no real problem between India and the United States except for poor communication, and consequently, mutual misconceptions. Given President Reagan's proven communication skills with the Ame-



President Reagan talks with Prime Minister Mrs Indira Gandhi during a meeting in the Oval Office of the White House, Washington on July 29.

SPECIAL REPORTS

can public and the world leaders like, he can do much to dispel the all of misconceptions which separates the American and Indian peoples, experts on the Asian Subcontinent here say.

As a former American ambassador, Mr Robert F. Goheen, observes, "there is an opportunity now for the United States to extend a sup-

portive and non-demanding hand to India and build a broader, steadier relationship at a time when strengthened ties are in our mutual interest. A strong, self-confident free-standing, democratic India is a good thing in its own right and is the surest check to the southward spread of Soviet power in Asia that the United States can hope to find."

Steel exports with subsidy?

from P. C. MAHANTI

CALCUTTA
THE representation by the Steel Authority of India Ltd (SAIL) and the Tata Iron and Steel Co Ltd New Delhi to permit them to export part of their unsold stock has been made under compelling circumstances. If the representation is accepted, India will emerge as a steel exporter again. For the past several years steel exports have been virtually banned as there was a shortage at home which had to be met by imports. For instance, India imported 88,000 tonnes of steel materials in 1980-81 and the next year imports went up to 1.2 million. Imports are still coming in and are causing a glut in several categories in domestic market.

Meanwhile the indigenous steel plants which have been under constant pressure to maximise production have found themselves in the unhappy situation of having to hold huge unsold stocks in their yards. This has created a serious cash flow problem for them. Despite some pick-up in the steel offtake since June the overall supply and demand situation remains unfavourable which is why the steel plants want to export if they are to maintain their production and employment levels. Unfortunately, the international market in steel remains very depressed and is likely to be more so as the USA reduces its imports both from the EEC and Japan. India is to gain any success in the export field clearly overseas sales will have to be heavily subsidised.

India exported as much as 10,000 of steel in 1968-69 and the peak was reached in 1976-77 at nearly a million tonnes but thereafter the volume of exports tapered off in response to the increasing home de-

mand. So the wheel has turned full circle and India finds herself obliged to export steel again. At the moment the steel industry as a whole is said to be carrying unsold stocks of around a million tonnes.

All things considered, exports can be the best palliatives because the steel industry's real ailment arises from recessionary conditions in the engineering industry which is the principal consumer of steel as important as the railways or even more. The truck and tractor manufacturers and a host of major engineering industries have been forced to cut their production ranging from 30 to 40 per cent due to persistently lower offtake of their goods by the market. Call it by any name there is a serious demand deficiency for engineering products, particularly

heavy engineering products, and this is due to the dear money policy as well as the credit squeeze which have made money both tight and scarce, so scarce, in fact, that industries have been unable to find sufficient working capital to keep themselves going. Consequently there has been a serious demand recession in the country which has been reflected in the glut of many strategic commodities, including steel, which, until a few weeks ago, were not adequately available.

The answer to the present situation lies in stimulating the economy through liberalisation of credit. Inflation, of course, is posing a serious threat again which puts the monetary authorities on their guard whenever any suggestion for credit relaxation comes up before them, but then the under-utilisation of industrial capacity stoke up the inflationary fire too. A balance, though a difficult balance it is, has to be struck between too tight a credit policy and curbs on undue monetary expansion. Otherwise a vicious circle will set in making it more and more difficult for the Government to bring the situation under control. In the particular case of the steel industry, under-utilisation of capacity will do considerable damage to its machinery and will make it difficult for the industry to resume full production when the next turnaround in the steel market comes along. The steel industry, of course, is having to scale down its target for 1982-83 because of severe power shortages in the iron and steel belt and it is not unlikely that a shortage situation may arise in the near future partly due to lower production from the plants and because of exports that may be subsequently allowed. One hopes that the Government will give the matter its most careful consideration before releasing any quantity for exports. In any case exports, if they are to be permitted, must be on a slightly selective basis governing those items for which no revival of demand in the near future can be foreseen. At the same time the steel plants should be asked to make their production more market-oriented. SAIL maintains a huge organisation, called the central sales organisation, with an army of managers of all sorts whose business it should be to monitor the demand trends in the market.

Bombay spot exchange rates of currencies as on 16th August, 82

(Currency units per Rs. 100)

Country	Currency	Selling T.T.D.D.	Buying T.T.clean
Australia	A. \$	10.580	10.770
Austria	A. Schilling	181.20	184.80
Belgium	B. Franc	491.50	501.50
Canada	C. \$	12.890	13.125
Denmark	D. Kroner	89.65	91.30
France	Franc	71.75	73.20
Hong Kong	H.K. \$	63.10	64.30
Italy	Lira	14481	14676
Japan	Yen	2706	2752
Malaysia	M. \$	24.37	24.82
Netherlands	Guilder	28.42	28.93
Norway	N. Kroner	69.40	70.70
Singapore	S. \$	22.51	22.92
Sweden	S. Kronor	63.75	65.00
Switzerland	S. Franc	22.07	22.46
UK	£	6.0725	6.1175
USA	\$	10.350	10.455
West Germany	D. M	25.81	26.24

Source: Syndicate Bank, International Division, Central Office, Bombay-400 021.

SPECIAL REPORTS

MSFC: Reviving sick units

BOMBAY

THE Maharashtra State Financial Corporation (MSFC), it would appear, has decided to assist more and more ancillary industries, particularly those coming in the backward areas. Only 10 per cent of the total sanctions of about Rs 50 crores would be made in 1982-83 for the ancillary industries. But it is likely that with the MSFC having decided to assist ancillaries that will come up in association with the Ashok Leyland's factory in Chandrapur district, Mahindra and Mahindra's Peugeot engine plant and Bajaj Auto's plant at Aurangabad this share will increase in the coming years. All these motor vehicles manufacturers even now have a large number of ancillaries and when they extend these activities many more ancillaries will come up. At present the MSFC is helping

ancillary industries of the Rashtriya Chemicals and Fertilisers that have been set up for the manufacture of jute bags.

According to the chairman of the corporation, Mr S. R. Damani, and its managing director, Mr Y. L. Rajwade, the corporation was not faced with the problem of sick units on a large scale. Out of 21,000 units assisted by the corporation over a period of twenty years 1,150 had turned sick and as a result Rs 7.60 crores were locked up. As against this, since July 1982 the corporation's sanctions totalled Rs 350 crores and disbursements Rs 230 crores. The suggestion by a correspondent that the visible shift in emphasis in assisting the ancillaries was because of large number of assisted units turning sick was denied by the two, though they agreed that with the an-

cillaries the problem of marketing their products would be easier and that at least a part, if not the whole, of their production would be absorbed by the parent units.

Mr Damani and Mr Rajwade explained that units had turned sick because of non-availability of working capital, marketing problems or supply of raw materials. The corporation was making all efforts to bring back these units into production, and during 1981-82 its efforts had succeeded in the case of 115 sick units. During the four months of the current financial year about 30 more units had been brought back to production. The corporation was laying increasing stress on bringing the sick units back into production rather than merely on sanctioning of loans to more units since in such sick units large funds of the corporation were locked up without any advantage to the entrepreneur or any areas

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

Item	Quality	Rs per kg				Percentage variation on August 13, 1982 over		
		Aug. 13, 1982	Aug. 6, 1982	July. 16, 1982	Aug. 14, 1981	A week ago	A month ago	A Year ago
Rice	Average	5.00	5.00	4.75	3.60	—	5.3	38.9
Wheat	Average	4.25	4.25	4.00	3.50	—	6.3	21.4
Jowar	Average	3.00	3.00	3.00	2.30	—	—	30.4
Bajra	Average	3.00	3.00	3.00	2.30	—	—	30.4
Gram dal ..	Average	6.00	6.00	5.20	6.50	—	15.4	-7.7
Tur dal	Average	7.75	7.75	7.50	6.80	—	3.3	14.0
Potatoes ..	Average	2.50	2.75	2.50	2.40	-9.1	—	4.2
Onions	Average	1.50	1.50	1.50	1.80	—	—	-16.7
Milk per litre	Buffalo	6.40	6.40	6.40	6.60	—	—	-3.0
Tea	Average	26.00	26.00	26.00	23.00	—	—	13.0
Coffee	Average	20.00	20.00	20.00	17.50	—	—	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.70	1.55	1.55	1.55	9.7	9.7	9.7
Sugar	Average	5.40	5.80	5.50	6.80	-6.9	-1.8	-20.6
Gur	Average	6.00	6.25	6.00	6.60	-4.0	—	-9.1
Groundnut oil ..	Average	15.50	15.50	15.00	18.00	—	3.3	-13.9
Vanaspati	Average	17.00	17.00	17.00	17.00	—	—	—
Toilet soap ..	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

Mr Damani said that the Maharashtra State Financial Corporation was the leading institution of its type in respect of cumulative sanctions disbursements. But it wanted to go in still even a larger measure for the development of backward districts which totalled 14 out of the 27 in the state. For this purpose it had set up a cell to guide would-be entrepreneurs on suitable locations and industries. It also proposed to engage the services of prominent consultants to prepare a shelf of projects which could be made available to genuine entrepreneurs. The corporation's board also had been re-organised to include an executive director of the Reserve Bank of India, managing director, Industrial Credit and Investment Corporation of India and State Bank of India and General Manager of Industrial Development of Bank of India as directors. In the view of Mr Damani this was a great asset for the corporation since their guidance was available for formulating policies, ensuring sanctions to the right type of projects, and tackling the various problems of industrial development.

SPECIAL REPORTS

GOVERNMENT COMPANIES

Sales growth lags behind production growth

THE increase in the value of production of the government companies — Central and State — during 1978-79 resulted in a rise in the value of stock of finished goods and work-in-progress, as the increase in the value of sales failed to keep pace with the increase in the value of production. This is the finding of a study made by the Company Finance Division of the Department of Statistical Analysis and Computer Services of the Reserve Bank of India just made public in the March 1982 issue of the Reserve Bank of India Bulletin. There was a decline in the operating profits of Central Government undertakings and a further increase in the losses of the state government undertakings because of the increased burden of interest payments.

The gross profits earned by 99 selected Central Government companies rose by Rs 7 crores during 1978-79, whereas gross losses totalling Rs 53 lakhs were incurred by 104 selected state government companies during the same year. Out of the 99 selected Central Government companies, the combined data in respect of 97 companies as worked out from the Annual Report of the Bureau of Public Enterprises for the year 1979-80 revealed that their performance as judged by the growth in production, sales and investment in fixed assets was better in 1979-80 as compared with the previous year.

For both Central and state government companies, the rise in total expenditure (excluding interest payments) was higher than in total income (excluding non-operating surplus/deficit). In the case of the former, expenditure increased by 14.8 per cent and income by 14.2 per cent, while in the case of state government companies, expenditure rose by 21.1 per cent and income by 17.4 per cent.

As a result of the increase in interest payments, there was a decline in the operating profits of Central Government companies and further increase in operating losses

of state government companies. Although both the categories of companies continued to show losses after making provisions for taxes and dividends, the losses were lower in case of Central Government companies but higher in respect of state government companies.

Three of the profitability ratios, viz, gross profits as percentage of sales/total net assets and profits after tax as percentage of net worth, showed a decline during the year in respect of both Central and state government companies. Two other profitability ratios viz, ordinary dividends as percentage of ordinary paid-up capital and total dividends as percentage of net worth registered some improvement only in the case of Central Government companies.

Gross fixed assets of Central Government companies increased by 12.1 per cent and inventories by 17.5 per cent. In the case of state government companies, there was an increase of 23.6 per cent in gross fixed assets and 16.6 per cent in inventories. Both Central and state government companies relied heavily on external sources of funds for financing gross assets formation.

The debt-equity ratio showed a marginal rise from 75.5 per cent in 1977-78 to 76.4 per cent in 1978-79 in the case of Central Government companies, whereas it recorded a phenomenal rise from 253.4 per cent to 372.6 per cent in the case of state government companies. Current ratio declined from 1.20 in 1977-78 to 1.15 in 1978-79 for Central Government companies and from 1.30 to 1.13 for State Government companies.

Financial performance of selected government companies 1978-79

(Rs. crores)

	99 Central Govt. Cos.		104 State Govt. Cos.	
	1977-78	1978-79	1977-78	1978-79
Value of production Sales@	11,302	12,887	559	656
Gross profits	11,101	12,560	555	629
Operating profits	473	480	17	—1
Profits retained	119	40	—25	—50
Gross capital formation+				
Of which, fixed assets	—140	—89	—40	—61
formation+		1,946		231
Increase in inventories		1,267		195
Net capital formation+		678		36
Total gross assets formation		1,586		191
Gross profits as % of total net assets		1,782		235
Gross profits as % of sales	3.1	2.9	1.4	*
Profits after tax as % of net worth	4.3	3.8	3.0	*
	*	*	*	*
Ratio of current assets to current liabilities	1.20	1.15	1.30	1.13
Debt as % of equity	75.5	76.4	253.4	372.6
Inventories as % of sales	34.9	36.2	39.2	40.4

Note : Figures have been rounded off to the nearest digit. @ Net of rebates and discounts and excise duty and cess. + Adjusted for revaluation due to devaluation/revaluation of foreign currencies, etc. * Denotes that the numerator is negative

SPECIAL REPORTS

RUBBER

Plea for buffer stock

BOMBAY

THE prices of natural and synthetic rubber and raw materials like carbon black, tyre cord and rubber chemicals have maintained an upward trend in the past year and the difference between international and domestic prices of rubber has widened. The prices of finished rubber products are thus continually being pushed up, which the rubber industries attribute to increased costs. The rubber component in any finished product is as high as 50 per cent. Since rubber is also an important component in the transport industry, the price increases have a cyclic reaction on the prices of many essential consumer products.

Mr V. K. Modi, president of the All India Rubber Industries Association, told 30th annual general meeting of the association that though the prices of natural rubber in the international market were low, the rubber industry was not in a position to avail of this advantage since rubber was imported through the State Trading Corporation. Natural rubber prices for RMA-1, which were Rs 6,240 per tonne in 1977, have tripled to Rs 18,000 per tonne. International prices of RSS-1 by comparison have fallen from Rs 13,990 in 1980 to Rs 8,150 in February 1982. These are export prices, inclusive of export duty. For rubber imported through the STC, the consuming industry has to pay full customs duty as well as STC service charges and overheads, Mr Modi said.

To meet growing domestic demand, the association has suggested that adequate buffer stocks of rubber be maintained in the country and the offer made by MARDEC of Malaysia to maintain buffer stocks in India at their own cost be accepted. The association has also asked the government to consider bilateral arrangements with Sri Lanka, Thailand and Indonesia for supplies of natural rubber. Also to reduce the wide gap between estimates of demand and supply made by the plantation sector, rubber board and the rubber industry, the government should maintain a proper monitoring system.

Explaining why rubber prices were so high in the country, the commerce secretary, Mr Abid Hussain, who inaugurated the meeting, said that the Commerce Ministry was trying to work out a method to see that the indigenous planter was not at a disadvantage. But, at the same time the ministry felt that rub-

paid the plantation sector about Rs 300 crores by way of difference between the minimum control price and the market prices ruling from time to time between 1977-1981. The industry also spent an additional Rs 30 crores by way of difference between the CIF Malaysia price and

The All India Rubber Industries Association has contested the estimates of rubber demand and supply made by Mr K. Joseph Monipally, general secretary of the Indian Rubber Growers Association, on the basis of which he is reported to have submitted a memorandum to the Union Commerce Minister urging him to stop rubber imports. According to Mr Monipally's estimates, production of natural rubber in 1982-83 will be around 176,000 tonnes and consumption 180,000 tonnes.

The All India Rubber Industries Association estimates that

consumption in 1982-83 will be around 2,10,000 tonnes and claims that production of natural rubber has remained stagnant at 1,50,000 tonnes for the last five years and will not increase to 1,76,000 tonnes overnight. It also points out that in narrowing the gap between demand and supply to a negligible 4,000 tonnes for the current year, Mr Monipally has ignored the stocks required to be maintained in the country at a given time. If stock requirements are taken into account (equivalent to 3 months' average consumption), the deficit actually works out to 80,000 tonnes.

ber imports should be increased so that planters were not content with doing less than their best.

Reacting to a suggestion made by Mr Modi that the Rubber Board be restructured to give equal representation to producers and consumers and that a round table conference of all concerned interests be held at regular intervals, Mr Abid Hussain said, the authorities would be happy if there was more integration between the plantation and industrial sectors.

Mr Modi pointed out that the rubber industry had borne an additional burden of Rs 360 crores between 1977-1981 by way of difference in the prices of local and imported rubber. During this five year period, India produced 7,38,000 tonnes of natural rubber, on which the industry paid a cess of Rs 29.52 crores. India consumed 8,21,000 tonnes of natural rubber during this period, of which the share of indigenous rubber was about 7,21,000 tonnes and that of imported rubber about 1 lakh tonnes. According to the association's calculations, the industry

the price at which the STC supplied imported rubber.

Mr Modi emphasised the importance of starting new plantations to reduce India's dependence on imports. Since more land was not easily available in Kerala for rubber cultivation, he said, the government should set up plantations in other states — Maharashtra, Goa, Karnataka, Tamil Nadu and Tripura. He also urged the government to step up synthetic rubber production in the country and to sanction a butyl rubber plant early. Synthetic rubber consumption has gone up from 34,500 tonnes in 1977 to about 44,000 tonnes in 1981 and is likely to go up to 85,000 tonnes by 1986. Production, however, has hardly gone up by 1,500 tonnes from 27,117 tonnes in 1977 to 28,664 tonnes in 1981.

He described the production trends in finished rubber products as buoyant. Auto tyre production had gone up from 61.82 lakh tyres in 1977 to 83.20 lakh tyres in 1981 and was likely reach 132 lakh tyres by 1986.

SPECIAL REPORTS

Adding more laurels

BOMBAY
THE Unit Trust of India (UTI) expects to fare even better in 1982-83 than in 1981-82 which has proved to be the best year in its history, according to Mr G. S. Patel, chairman, UTI. The Union budget for 1982-83 has provided more tax concessions for units. These concessions, the step-up in the rate of dividend for the third successive year, efforts made by the UTI to render better service to unit holders and the big response UTI's new schemes have received augur well for its performance in the current year.

Mr Patel said, the fact that the management has been able to raise UTI's dividend year after year shows that it has adapted well to the changing environment, conditioned by fiscal and monetary policies. UTI has effected a progressive shift in its investment portfolio in favour of investment yielding securities. Reserves have also augmented in the past few years.

Out of a total investment of Rs 88 crores at the end of June 1982 against Rs 412 crores in the preceding year, investments in equity shares totalled Rs 152 crores against Rs 130 crores, in preference shares Rs 13 crores against Rs 16 crores, in ventures Rs 195 crores against Rs 138 crores, and in fixed deposits Rs 89 crores against Rs 67 crores.

UTI has set records in sales, income and dividend during the year ended June 1982. Sales of units crossed Rs 100 crores for the second time in UTI's history, touching Rs 107 crores. Higher sales were mainly in response to the income unit scheme, which attracted Rs 57 crores in the two months it was in operation, in May and June this year. Sales under the unit-linked insurance plan at Rs 37.32 crores showed a rise of about 6 per cent over the previous year. Sales under the unit scheme for charitable and religious trusts and registered societies (CRTS) reached Rs 9.10 crores in the nine month period October 1981 to June 1982, exceeding the Rs 5 crore target set for the year.

Money

Charges for unrendered services

BANKS have steeply raised their service charges to customers. Apparently, as every one knows, these charges are for unrendered services. Although banks would not give current account statements promptly and regularly, they will levy a ledger folio charge on the basis of number of pages and the number of lines in a page. Duplicate statements would be charged on the basis of the number of entries, although originals were never issued or were incomplete when they were issued.

Addition or deletion of names to deposit accounts would cost Rs 5 per name per occasion, but there is no guarantee that the bank will write all the joint holders' names in the statements or passbooks or credit all your deposits correctly and positively to your account only. As regards collecting and paying bankers will charge Rs 5 to their customers at both places for every cheque returned, even if the cheque is returned for a technical mistake made by the bank. Banks do not read or follow any 'return objections' instructions. They send clearing cheques for collections, present cheques to the wrong banks branches, do not represent cheques even where requested. Yet the charges will be made and disputes will arise thereafter. Plus postages and out of pocket expenses (letter, typist, envelope?) will also be charged. After all these charges the returned cheque will come to you fifteen days after the day of deposit.

Collection, purchase, discount and remittance charges have been raised three to four times. All other miscellaneous services have also become costlier. Trade and industry are raising their voices against the costlier services. Although they are protesting against the steep rise in charges, the real reason for their pique is that these charges are for services that are extremely poor and unsatisfactory. Corporate, organisational and busi-

ness customers would really not be averse to pay even higher service charges still, if the charges were for services. If banks can guarantee an outstation collection in seven days, a clearing result in 24 hours and a weekly statement of account, it would still be cheaper for the business to pay double the present revised charges.

There is one great gap in the banks' schedule of service charges. If they offer expert and competent financial management services and investment advice, customers would willingly pay high and satisfying fees with a smile on their face. But banks have neither expertise nor advice to offer and are unable to charge for such non-existent services.

The new schedule of service charges made by the banks is contradictory in many ways. Its main aim is to meet the rising cost of providing services by increasing the revenue from service charges. But in reality banks are unlikely to realise any noticeable increase in earnings. The new schemes of service charges have been made so complicated that the cost of collecting the charges would be more than the charges themselves. Without realising the amount of workload in calculating the number of pages, number of lines and blocks of the specified number of entries, banks have based the service charges on such calculations, in such a way that cost of recovering Rs 10 by way of service charge would involve additional Rs 20 in staff wages and overtime.

Above all else, banks' service charges are a conglomeration of half-baked ideas. Why are they afraid of Monopolistic and Restrictive Trade Practices Commission? Do they think they can get away with it by making a schedule of charges and then leaving it to each one to follow?

S. G. Shah

NOTICE

FORM II-A

It is hereby notified for the information of the public that LAKSHMI TEXTILE EXPORTERS PRIVATE LTD., proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under Sub-Section(2) of Section 22 of the MRTP Act, 1969, for approval for the establishment of a new undertaking to set up a Service Unit to execute job orders for the Textile Machinery Manufacturers and other General Engineering Units.

Other particulars of the proposed new undertaking are as under :

1. **NAME OF THE UNDERTAKING**
No new company is being formed. The proposed undertaking will be a separate unit of Lakshmi Textile Exporters Private Ltd.,
2. **NAME(S) OF PERSON(S) OR AUTHORITY/AUTHORITIES PROPOSING TO ESTABLISH THE NEW UNDERTAKING**

Lakshmi Textile Exporters Private Limited

3. **WHERE IT IS A BODY CORPORATE, FURNISH DETAILS OF ITS MANAGEMENT STRUCTURE TOGETHER WITH THOSE OF THE PROPOSED UNDERTAKING**
Managed by a Managing Director, subject to Superintendence control and direction of the Board of Directors. The proposed undertaking will also be managed as stated above.

4. **CAPITAL STRUCTURE OF THE APPLICANT PERSON OR AUTHORITY AND OF THE PROPOSED UNDERTAKING**

- i) The proposed undertaking will be an unit of Lakshmi Textile Exporters Private Ltd.,
- ii) The new undertaking will not be a separate company with independent capital structure
- iii) The capital structure of Lakshmi Textile Exporters Pvt. Ltd., as on date is as follows :

	(Equity Rs.)
Authorised	5.00 lakhs
Subscribed	1.45 lakhs
Paid Up	1.45 lakhs

5. **PROPOSED LOCATION OF THE NEW UNDERTAKING**
The proposed location of undertaking will be Kurumbapalayam Tahsil Palladam, Dist. Coimbatore, State Tamil Nadu

6. **BRIEF OUTLINE OF THE COST OF THE PROJECT, THE SCHEME AND SOURCE OF FINANCE**

	Rs. in lakhs
Estimated Cost of Project	60.00
Sources of Finance :	
Internal Accruals	15.00
Long Term Borrowings	25.00
Proposed Share Capital	20.00

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of Publication of this Notice, intimating his views on the proposal and indicating nature of his interest thereon.

Regd. Office :
348, Avanashi Road,
Coimbatore-641 037
Date : 12.8.82
(Sd) V. JAGANNATHAN
Managing Director
Lakshmi Textile Exporters Pvt. Ltd.

AEGIS CHEMICAL INDUSTRIES LIMITED

NOTICE

It is hereby notified for the information of the public that AEGIS CHEMICAL INDUSTRIES LIMITED, National Highway No. 8, Vapi, Dist. Bulsar, (Gujarat State)-396 191 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities.

Brief particulars of the proposal are as under :—

- I. Name(s) of person(s) / : AEGIS CHEMICAL INDUSTRIES LIMITED, body corporate owning the undertaking : National Highway No. 8, Vapi, Dist. Bulsar, (Gujarat State)-396 191
- II. Capital structure of the :
applicant undertaking : Rs. in lakhs

SHARE CAPITAL	
AUTHORISED CAPITAL	500
50,00,000 shares of Rs. 10 each	
ISSUED AND SUBSCRIBED CAPITAL	281.24
PAID UP CAPITAL	234.36
- III. Details of the proposed substantial expansion :
 - a) Name of new goods to be produced, supplied, controlled or distributed or of new services to be rendered. : N.A.
 - b) In the case of substantial expansion of existing activities :

	Name of Goods	Licenced Capacity before Expansion	Licenced Capacity after Expansion
a)	HEXAMINE	600	950
b)	PENTAERY-THRITOL	1200	1720
 - c) Location of the project for substantial expansion : At its Petrochem Works AEGIS CHEMICAL INDUSTRIES LIMITED, National Highway No. 8, Vapi, Dist. Bulsar, GUJARAT STATE-396 191
 - d) Brief outline of the cost of the project, the scheme and source of finance :

	Rs. in lakh
Building	—
Plant & Machinery	—
TOTAL :	
will be met from the internal sources of the Company	

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his view on the proposal and indicating the nature of his interest thereon.

For AEGIS CHEMICAL INDUSTRIES LIMITED

RAVINDRA JOSHI
COMPANY SECRETARY

Dated : this, 13th of August 1982

REGD. OFFICE
AEGIS CHEMICAL INDUSTRIES LIMITED
National Highway No. 8, Vapi,
Dist. Bulsar,
GUJARAT STATE-396 191.

Housewives!

Here's the answer to all your cleaning problems



TEEPOL

multi-purpose liquid detergent

TEEPOL—a world-class product used by women the world over

Teepol is a quality detergent formulation of Shell worldwide, which NOCIL (a Mafatlal-Shell Company) now brings to Indian housewives.

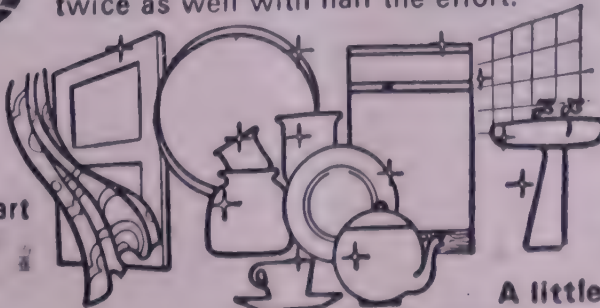


TEEPOL—drives dirt out faster
Teepol, being a liquid detergent, dissolves instantly in water. So you can start washing-up whatever you want right away.



TEEPOL—cuts grease instantly

Due to its powerful detergent action, Teepol wipes out every trace of grease. It cleans twice as well with half the effort.



TEEPOL—saves you money

Teepol is concentrated. You need to use only a little to do a great cleaning job.

TEEPOL—the versatile cleanser

It is the one liquid detergent that does the job of many. It cleans tiles, bottles, jars, windows, mirrors, woodwork, carpets, furnishings, dishes, cutlery, ovens, sanitary-ware and floors.

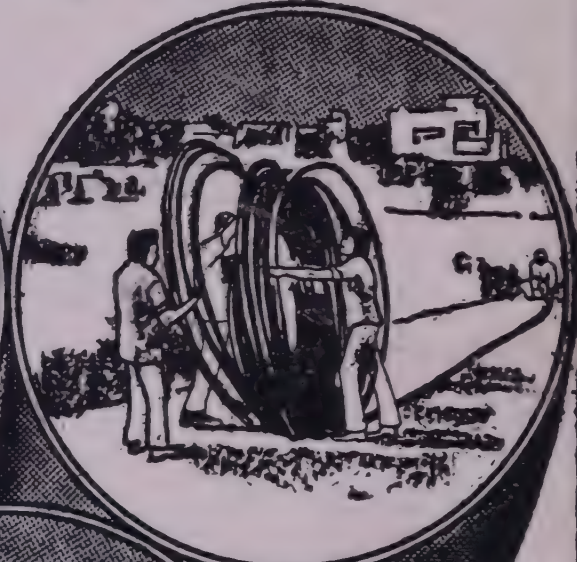
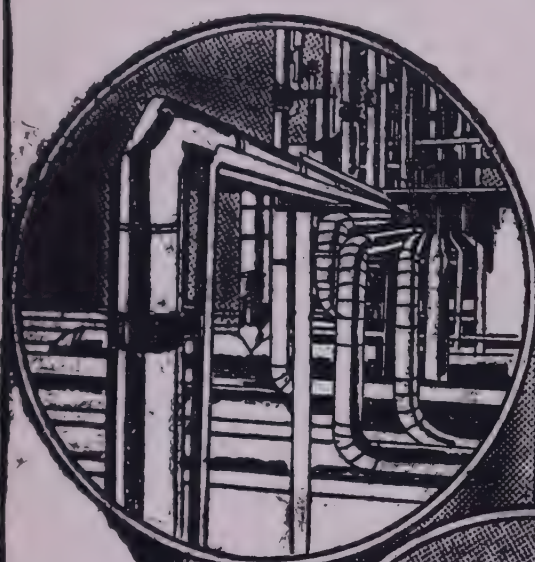


Marketed by:
NATIONAL ORGANIC CHEMICAL INDUSTRIES LIMITED
Mafatlal Centre, Nariman Point, Bombay-400 021

A little TEEPOL does a lot of cleaning.

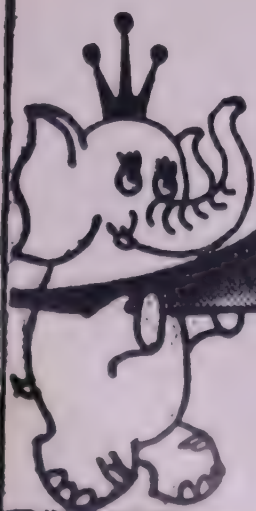
Gas. Slurry. Chemicals. Effluents. Water.
You name it...

HASTI HDPE PIPES
are ideal for anything that flows.



**Multi-purpose
Hasti HDPE Pipes are:**

- Chemically inert: they don't rust or corrode.
 - Light: they are more economical and easy to transport.
 - Flexible: they can be laid easily over rugged terrain, under water, across marshes, etc.
 - Longer-lasting: they need no maintenance and last for at least 50 years.
 - Tough: they have high flexural and impact resistance.
- Hasti Pipes — the ideal piping system for all applications.



**POLYOLEFINS
INDUSTRIES LIMITED**

Head Office: Nariman Point, Bombay 400 021.

CAPITAL MARKET

Big houses permitted higher equity participation

The Government has now allowed large industrial houses and FERA companies to step up their equity participation in joint sector companies to over 25 per cent. The equity participation by large industrial houses and FERA companies was restricted to 25 per cent ever since 1966 when for the first time the Government formulated exhaustive guidelines regarding the pattern of shareholding in joint sector projects. Under the guidelines, the State Industrial Development Corporations were required to have a minimum of 26 per equity in joint sector projects. And in no case the private party was entitled to an equity participation higher than that of the State government's. By the latest revision in these guidelines, the Government has now allowed large houses and FERA companies to acquire the shareholding of the State governments after the implementation of the project to over 25 per cent. However, according to the latest guidelines, once the shareholding of such large houses and FERA companies reaches the 33-1/3 per cent level, the project would attract the provisions of the MRTP act whereby the joint sector company would be treated as an inter-connected company.

Lakme Ltd to be de-linked from TOMCO

Lakme Ltd, engaged in the manufacture of cosmetics, is being delinked from the Tata Oil Mills Ltd (TOMCO) so as to enable it to expand and diversify its activities. The company is entering into the pharmaceutical field by establishing a project for the manufacture of basic drugs and pharmaceuticals. Being a fully-owned subsidiary of TOMCO, an MRTP company, Lakme's growth is presently restricted. The delinking will be effected by Lakme going public with an offer for sale of a part of the shareholding of TOMCO as also fresh issue of capital. The offer of shares to public will result in the dilution of Tata's interest in Lakme from the existing 100 per cent to

about 30 per cent which will enable the company to get out of the MRTP restrictions. The offer for sale will be for shares worth Rs 40 lakhs. Besides, the company would be making a fresh capital issue of about Rs 50 lakhs. Thus, Lakme will be making a total public offer of shares of the value of Rs 90 lakhs. The offer for sale of shares will be at a premium and is scheduled to be made early in 1983. It has already received a letter of intent for the manufacture of some life-saving basic drugs, such as ethambutol, an anti-TB drug and chloroquin phosphate, an anti-malaria product as well as their intermediates and formulations. The company plans to set up the Rs 5-crore pharmaceuticals project at Patalganga in Maharashtra and expects to commission the same in the second half of 1984.

Indal may merge with Mahindra

Indian Aluminium Co Ltd (Indal) is likely to merge with Mahindra and Mahindra Ltd. The boards of both the companies are understood to have favoured the merger proposal and are currently assessing the various aspects in respect of an amalgamation between the two corporate giants engaged in diverse activities. If the proposal goes through, the merger would be the largest ever in India. The emerging corporate entity will have an annual turnover of nearly Rs 500 crores and net capital employed of about Rs 250 crores. Its net depreciated assets would be around Rs 80 crores. The current replacement value of assets is expected as high as Rs 700 crores. Mahindra and Mahindra, an MRTP Company, is expecting a smooth merger, including the approval of the authorities, and aluminium products, being a core sector activity, the company's proposal for diversification or expansion is not likely to be opposed. Indal, a FERA company, stands to gain equally from such a merger as the amalgamated company would become an Indian company envisaging both expansion and diversification. As a FERA company Indal now finds it difficult to embark on large-scale expansion and diversification.

For Mahindra and Mahindra, the proposed merger is the second one in the recent years. A few years ago it took over International Tractor Company which forms the tractor division of the company.

Modis bid to take over Synthetics and Chemicals

Modis are planning to take over Synthetics and Chemicals Ltd by acquiring 25 per cent interest in the company from Firestone of America, the company's collaborator. Modis' proposal to acquire the entire Firestone holding of 1,43,000 equity shares of Synthetics and Chemicals is now before the Reserve Bank of India for its approval. Modis are understood to have indicated a price of Rs 125 per share of Rs 100 paid up for the block of shares against the current market price of Rs 70. Meanwhile, Kilachands, the promoters of the company and now in charge of its management with a stake of 17 per cent shareholding, are preparing for a fierce fight against the Modis' bid.

Synthetics and Chemicals, being the sole producer of synthetic rubber in the country, will provide a solid base to Modis for a backward integration in the field of tyre manufacture.

"Firestone" becomes "Modistone"

Bombay Tyres International Ltd has chosen "Modistone" as the new brand name to replace "Firestone", the brand name so long in use. Meanwhile, according to Mr B. K. Modi, the first phase of the modernisation plan costing Rs 11 crores is well under way. The management will go for further modernisation programme to introduce high quality nylon truck tyres involving a substantial investment. The company will offer rights shares and convertible debentures for the purpose. The board of directors, at its meeting held on July 27, approved the scheme of fixed deposits and would soon invite deposits to the tune of about Rs 85 lakhs.

CORPORATE SECTOR

In the market

J. K. Synthetics

J. K. Synthetics Ltd (Registered Office: Kamla Tower, Kanpur) now in the capital market with offer for public subscription at par 6 lakhs 15 per cent secured redeemable debentures of Rs 100 each totalling Rs 6 crores. The subscription list, which opened on August 9, will close on August 27. The object of the present issue is to raise a part of the cost of the company's third cement plant.

Tata Chemicals

Tata Chemicals Ltd (Registered Office: Bombay House, 24, Homi Mody Street, Bombay 400 023) has offered for public subscription at par 3.50 lakhs, 15 per cent non-convertible secured debentures of Rs 100 each totalling Rs 3.50 crores as rights. Unsubscribed portion, if any, will be offered to the public. The subscription list, which opened on August 18, will close on August 28 or earlier but not before August 24. The company was incorporated in January 1939 for manufacture of soda ash. The object of the present issue is to augment the resources of the company.

Guest Keen Williams

Guest Keen Williams Ltd (Registered Office: 3A, Shakespeare Sarani, Calcutta 700 071) is offering for public subscription at par 7.625 lakhs 13.5 per cent secured convertible debentures of Rs 200 each totalling Rs 15.25 crores. The subscription list will open on August 23 and close on September 3 or earlier but not before August 27. The company is engaged in the manufacture of engineering goods. The object of the present issue is to finance a part of the cost of the company's expansion programme.

Cellulose Products

Cellulose Products of India Ltd (Registered Office: National Chambers, Office Nos. 4 & 5, Near Dipali Theatre, Ashram Road, Ahmedabad 380 009) is entering the capital market on August 23, 1982 with an issue of 75,000 secured convertible debentures of Rs 200 each valued at Rs 1.5 crores. Of the issue, debentures worth Rs 55 lakhs are reserved for allotment on rights basis to the company's shareholders.

The chairman and managing director of the company, Mr Laxmikant Bhagubhai, explained to newsmen in Bombay that the company was making this debenture issue with a view to raising part of the finance for its Rs 2.50-crore industrial alcohol project at Pungam village near Ankleshwar that was scheduled to go into production by December this year. When in full production in 1984-85, the project was expected to add Rs 3 crores annually to the company's turnover which had grown in the last ten years from Rs 2.78 crores in 1971-72 to Rs 9.75 crores in 1980-81. The company had in all nine plants at three different locations. The company's net worth had risen to Rs 3.15 crores from Rs 1.11 crores during the period.

Bakelite Hylam

Bakelite Hylam Ltd (Registered Office: 7-2-1669, Sanathnagar, Hyderabad 500 018, Andhra Pradesh) entered the capital market on August 11 with an offer for public subscription 8,37,115 equity shares of Rs 10 each (at a premium of Rs 5 per share) totalling Rs 83.71 lakhs. The subscription list will close on August 23 or earlier but not before August 16. The object of the present issue is to reduce the non-resident interest in the equity share capital of the company to 40 per cent.

Other developments

Mafatlal Fine may shift to backward area

The outlook for the textile industry in Bombay will be bleak if the present strike continues, Mr Arvind Mafatlal, chairman, Mafatlal Fine Spinning and Manufacturing Co, told shareholders at the company's annual general meeting. He hoped that wiser counsels would prevail and a settlement reached in the near future. Otherwise, many textile units would have to think in terms of shifting to other regions.

Mr Arvind Mafatlal said, the strike had adversely affected the company's textile division in the current year. During the first four months ended July, sales of the textile division declined by about 42 per cent to Rs 16.43 crores against sales of Rs 28.30 crores in the first four months of 1981-82. But, the chemicals division fared better with sales

touching Rs 7.28 crores during the current year against sales of Rs 5.80 crores during the same period last year.

He said the company had skipped the dividend for the first time in its history for the year ended March 1982 because of the textile strike. The company's textile units in Bombay are working partially with a complement of 1,100 out of 5,000 workers.

Mr Mafatlal also hinted at the possibility of shifting the company's textile units to a backward area of Maharashtra because production costs were high in Bombay and the textile units could not compete with their counterparts in the industry. Only a few companies could keep their heads above water because of the sophisticated machinery and plant they employed.

Standard Mills' bond issue

The Standard Mills Co Ltd has extended the last date for acceptance of application forms in respect of the rights issue of two lakhs of 13.5 per cent convertible bonds of Rs 500 each for cash at par. The applications will now be accepted till the close of the banking hours on August 31, 1982.

Forthcoming company meetings

AUGUST 21 TO AUGUST 27

TATA ENGINEERING & LOCOMOTIVE COMPANY LIMITED, Birla Matu-shri Sabhagar, Sir Vithaldas Thackersey Marg, Bombay 400 020. (August 24, 3.45 p.m.).

GWALIOR RAYON SILK MFG. & WVG. COMPANY LIMITED, Grasim Club, Birlagram, Nagda (M.P.) (August 25, 4.15 p.m.).

BOMBAY CYCLE & MOTOR AGENCY LTD, Babasaheb Dahanukar Sabhagriha, Maharashtra Chamber of Commerce, K. Dubash Marg, Bombay 400 001. (August 25, 4 p.m.).

AMPHETRONIX LIMITED, Hotel Blue Diamond, Pune 411 001, Maharashtra. (August 25, 11 a.m.).

AHMEDABAD MANUFACTURING AND CALICO PRINTING COMPANY LIMITED, Dani Limda Estate, Outside Jamalpur Gate, Ahmedabad 380 022. (August 25, 10 a.m.).

ITC LIMITED, St. Paul's Cathedral Compound, Cathedral Road, Calcutta 700 071. (August 26, 3 p.m.).

INVESTMENT CORPORATION OF INDIA, Bombay House Auditorium, Homi Mody Street, Bombay 400 023. (August 27, 4 p.m.).

Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rs lakhs)

Name of Company	Elecon Engineering		Guest Keen Williams		Hindustan Development Corpn.		McNally Bharat Engineering Co.		Sandvik Asia	
Industry Group	General Engineering		General Engineering		General Engineering		General Engineering		General Engineering	
Item	Year ended December		Year ended December		Year ended December		Year ended November		Year ended December	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Liabilities (at the end of the year)										
1. Net worth (i+ii)	972.5	1,171.3	4,864.0	6,892.1	585.9	763.7	510.6	514.3	734.3	779.0
(i) Paid-up capital (a+b)	186.0	267.0	1,449.9	1,459.9	150.0	150.0	242.3	242.3	192.5	288.8
(a) Equity	162.0	243.0	1,459.9	1,459.9	150.0	150.0	242.3	242.3	192.5	288.8
(b) Preference	24.0	24.0	—	—	—	—	—	—	—	—
(ii) Reserves	786.5	904.3	3,404.1	5,432.2	435.9	613.7	268.3	272.0	541.8	490.2
2. Borrowings (i+ii)	664.6	1,271.6	1,694.1	2,335.4	638.5	1,490.1	190.7	311.1	711.8	779.0
(i) Long-term	206.3	333.6	527.7	641.8	12.6	605.7	—	83.7	160.4	165.1
(ii) Short-term	458.3	938.0	1,166.4	1,693.6	525.9	884.4	190.7	227.4	551.4	613.9
3. Non-current liabilities and provisions	—	—	153.0	171.7	—	—	11.8	17.7	6.3	17.1
4. Current liabilities and provisions	2,432.5	2,892.6	1,990.1	2,615.9	438.8	478.0	2,043.4	2,983.2	668.5	574.9
Assets (at the end of the year)										
5. Gross fixed assets	1,519.1	2,091.7	5,947.4	7,822.3	642.9	1,280.8	605.3	685.3	1,115.0	1,256.9
6. Less depreciation	598.0	769.4	2,668.7	2,805.9	206.7	256.2	227.0	261.6	645.8	721.6
7. Net fixed assets (5-6)	921.1	1,322.3	3,278.7	5,016.4	436.2	1,024.6	378.3	423.7	469.2	535.3
8. Current assets (i+ii+iii)	3,146.5	4,011.2	5,402.7	6,978.9	1,226.4	1,706.6	2,378.2	3,402.6	1,671.7	1,614.7
(i) Inventories	1,951.8	2,330.9	2,931.8	4,343.3	702.5	907.7	1,952.0	2,926.7	913.7	881.2
(ii) Receivables and loans and advances	1,014.5	1,335.0	2,163.0	2,323.0	451.0	686.8	395.4	435.6	635.9	591.3
(iii) Others	180.2	45.3	307.9	307.6	59.9	110.1	30.8	40.3	92.1	142.2
9. Other assets	2.0	2.0	19.8	19.8	0.6	0.6	—	—	—	—
Total: Liabilities (1 to 4) or Net assets (7 to 9)	4,069.6	5,335.5	8,701.2	12,015.1	1,663.2	2,731.8	2,756.5	3,826.3	2,140.9	2,150.0
Value of production and other income										
10. Sales/income net of excise duty, discounts and selling commission	2,880.6	3,675.1	12,311.7	15,261.6	2,766.2	4,028.0	787.9	1,069.1	2,311.8	2,467.2
11. Increase in stock of finished goods and work in progress	200.6	519.3	188.7	666.5	-203.9	160.0	547.0	740.2	129.8	-32.3
12. Value of production (10+11)	3,080.6	4,194.4	12,500.4	15,928.1	2,562.3	4,188.0	1,334.9	1,809.3	2,441.6	2,434.9
13. Other income	46.1	37.1	87.3	111.0	5.3	33.4	18.4	6.8	35.9	15.4
Expenditure										
14. Materials, stores and other mfg. expenses	2,070.0	2,943.9	7,580.2	9,898.2	1,805.7	3,078.1	947.6	1,309.4	1,487.8	1,238.0
15. Current repairs	34.4	40.9	605.5	716.0	38.3	65.3	24.1	23.1	54.3	57.1
16. Salaries and wages	290.5	335.8	2,059.1	2,360.9	183.8	257.3	113.8	131.4	242.4	306.4
17. Welfare expenses	16.9	29.5	321.8	336.1	10.3	14.0	12.8	14.8	33.0	40.1
18. Managerial remuneration	0.2	0.2	1.7	2.7	—	—	0.2	0.1	—	—
19. Other expenses	237.1	245.6	571.2	705.4	135.0	273.6	103.7	159.1	250.7	271.5
20. Depreciation	123.6	175.9	267.7	284.1	30.6	51.0	34.1	34.9	78.0	80.6
21. Other provisions	—	—	—	—	—	—	11.8	17.7	4.6	29.0
22. Operating profit (12+13)-(14 to 21)	354.0	459.7	1,176.9	1,683.7	363.9	482.1	101.9	125.6	326.7	427.6
23. Interest	171.8	219.4	271.1	390.7	92.1	163.2	42.2	40.5	129.9	162.2
24. Tax provision	32.7	—	573.0	693.0	127.0	103.6	37.5	64.5	130.0	138.0
25. Profit after tax (22-23-24)	149.5	230.3	332.8	600.0	144.8	210.3	25.2	20.6	66.8	127.4
Appropriations										
26. Dividends (i+ii)	31.5	38.8	204.4	233.6	30.0	30.0	36.3	36.3	43.3	52.0
(i) Equity	29.2	36.5	204.4	233.6	30.0	30.0	36.3	36.3	43.3	52.0
(ii) Preference	2.3	2.3	—	—	—	—	—	—	—	—
27. Profit retained (25-26)	118.0	191.5	123.4	356.4	114.8	180.3	-11.1	-15.7	23.5	75.4
Total: Value of production and other income (12+13) or Expenses and appropriations (14 to 22)	3,126.7	4,231.5	12,587.7	16,039.1	2,567.6	4,221.4	1,353.3	1,816.1	2,477.5	2,450.3
Operational Indicators (per cent)										
(a) Net worth/total net assets	23.9	22.0	55.9	57.4	35.2	28.0	18.5	13.4	34.3	36.2
(b) Inventories/net sales	67.8	71.6	23.8	28.5	25.4	22.6	247.7	273.8	40.8	35.7
(c) Operating profit/net sales	12.3	12.5	9.6	11.0	13.2	12.0	13.3	11.7	14.1	17.3
(d) Operating profit/total net assets	8.7	8.6	13.5	14.0	21.9	17.6	3.8	3.3	15.3	19.9
(e) Profit after tax/net worth	15.4	19.7	6.8	8.7	24.7	27.5	4.9	4.0	9.1	16.4
(f) Equity earning/equity capital	90.9	93.8	22.8	41.1	95.5	140.2	10.4	8.5	34.7	44.1
(g) Equity dividend	18.0	15.0	14.0	16.0	20.0	20.0	15.0	15.0	15.0	18.0
(h) Equity dividend coverage (No. of times)	5.1	6.3	1.6	2.6	4.8	7.0	0.7	0.6	2.3	2.5
(i) Paid-up value per equity share (Rs.)	100.00	10.00*	10.00	10.00	10.00	10.00	10.00	10.00	100.00	100.00
(j) Market price of an equity share (Rs.)	435.00	34.50	29.00	30.20	71.50	56.00	22.75	21.00	340.00	320.00
(k) Gross yield	4.1	4.3	4.8	5.3	2.8	3.6	6.6	7.1	4.4	5.6
(l) Gross fixed assets formation	23.5	37.7	7.3	31.5	16.9	99.2	3.4	13.2	10.9	12.0
(m) Debt/equity	0.21:1	0.28:1	0.11:1	0.39:1	0.19:1	0.79:1	—	0.16:1	0.22:1	0.12

NOTES: ..Category not applicable ... Amount/Percentage is negligible —Amount is nil N.Q Not quoted N.A. Not available
 The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of various items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments are sometimes made in other items also. Totals may not add up due to rounding off. *Quotations since September 29, 1981 and for Rs. 10 paid up capital.

EQUITIES

THE WEEK'S PRICE RANGE

(Compiled by
Commerce Research Bureau)

Reliance retained in 'A' group

Bombay, August 16

Finally Reliance has been retained in 'A' group, subject to certain conditions. This is the first time the governing board of BSE was forced to change its decision because of a representation by the majority of brokers and jobbers. The main reason for shifting the scrip to 'B' group was the excessive speculative activity in the scrip in May. As a sequel to excessive speculative activity BSE had earlier shifted Bajaj Auto, Great Eastern Shipping and Century Enka. After Reliance, a similar development had also taken place in Century on account of speculative activity, but the governing board has not taken any decision to shift that scrip to 'B' group. If Reliance were to be removed to 'B' group on account of speculative business then Century should have been shifted to 'B' group on the same ground.

One of the conditions while retaining the scrip in 'A' group is that from August 13 member-brokers should submit their daily transactions in form No. 102. Secondly, daily margin of Rs 10 per share will be payable both on sale and purchase as shown in form No. 102 apart from any additional security deposit levied on business. The chairman of BSE can discreetly change the margin from time to time as circumstances permit. Thirdly, the daily margin will be in addition to the additional deposit payable on outstanding business at the end of settlement. And fourthly, members have been told not to overtrade in the scrip. Any person who is found to be overtrading will have to pay additional deposits according to the discretion of the chairman. Even after enforcing these restrictions if it is found that business in the scrip has increased to an extent which the board considers dangerous to the market's safety, the scrip will be immediately transferred to 'B' group. Reliance moved up by Rs 3.50 to Rs 157.50 during the week.

The star performer was again ACC which advanced by Rs 9.50 to Rs 353.50 on influential buying. Even financial institutions bought a block of shares at the rising prices on hopes of good working results and higher dividend for the year ended July 1982. GSFC, Indian Dyestuff, PAL, Tata Steel and S.I. Viscose evoked useful investment inquiries.

"A" Group Equity Shares

	Closing quotations 7-8-82	High	Low	Closing quotations 14-8-82
	Rs.	Rs.	Rs.	Rs.
A. C. C. (100)	334.00	359.00	331.00	353.50
Ashok Leyland (10)	35.00	37.50	35.00	37.50
Ballarpur Ind. (10)	42.00	42.00	41.00	41.00
Baroda Rayon (100)	392.00	393.50	262.00	263.50
Bihar Alloy (10)	12.00	12.25	11.75	12.00
Bombay Dyeing (25)	67.00	69.50	64.00	69.50
Century (100)	720.00	727.50	720.00	720.00
Colgate (10)	85.00	85.00	82.50	83.00
E. I. Hotel (10)	22.00	22.50	21.50	21.50
Garware Nylon (10)	42.00	42.50	40.50	41.00
Guj. State Fert. (100)	415.00	418.00	407.00	418.00
Gwalior Rayon (10)	48.25	48.75	47.50	48.50
Hind. Alum. (10)	31.00	32.00	31.00	31.50
Hind. Lever (10)	52.50	51.25	48.50	50.00
Hindustan Motor (10)	27.50	28.25	27.00	28.00
Indian Dyestuff (100)	205.00	223.75	202.50	212.50
Indian Organic (10)	26.50	27.50	26.25	27.00
Indian Rayon (10)	94.50	96.00	92.00	92.25
ITC Ltd. (10)	30.50	31.50	30.00	31.50
J. K. Synthetics (10)	58.50	59.50	57.50	59.50
Larsen & Toubro (10)	52.50	53.50	51.00	52.50
Mahindra & Mahindra (10)	43.75	44.00	42.50	43.00
Metal Box (10)	13.50	13.25	12.00	12.75
Modi Rubber (10)	28.50	29.00	28.00	28.50
Motor Industries (100)	240.00	248.75	240.00	240.00
MRF (10)	23.50	23.50	22.50	23.50
Mukand Iron (10)	25.75	26.00	25.50	25.75
National Organic (100)	178.00	180.00	176.00	180.00
Nirlon (10)	39.50	40.50	37.75	39.75
Premier Auto (100)	347.00	354.00	337.00	351.00
Reliance Textile (10)	154.00	161.00	151.00	157.50
Scindia (20)	13.25	13.50	12.75	12.75
Shriram Fibres (10)	46.50	48.50	46.00	47.50
Siemens India (10)	37.50	39.50	37.50	38.50
Sirpur Paper (10)	22.50	22.25	21.75	22.25
South India Viscose (100)	202.50	205.00	200.00	205.00
Southern Petro (10)	14.00	14.75	13.75	14.75
Standard Mills (100)	299.00	300.00	285.00	288.00
Straw Products (10)	42.00	42.25	41.50	42.00
Svadeshi Mills (100)	138.00	138.00	135.00	138.00
Tata Chemicals (10)	53.50	53.50	52.00	53.50
Tata Eng. & Loco. (100)	392.00	404.00	387.00	388.00
Tata Oil (25)	55.00	55.00	50.00	52.50
Tata Steel (100)	324.00	335.00	325.00	326.00
Volta (100)	267.00	266.00	261.00	265.00
Zenith Steel pipe (10)	45.50	46.50	45.00	45.50
Zuari Agro (10)	22.00	22.00	20.00	20.00

"B" Group Equity Shares

	Closing quotations 7-8-82	High	Low	Closing quotations 14-8-82
	Rs.	Rs.	Rs.	Rs.
Ahmedabad Advance (100)	230.00	250.00	230.00	250.00
Ahmedabad Elect. (100)	100.00	99.00	98.00	98.50
Alkali & Chem. (10)	15.25*	—	—	15.25*
Amar Dye Chem. (100)	140.00	142.50	135.00	140.00
Andhra Valley (100)	103.00	—	—	103.00*
Asian Cables (100)	140.00	141.00	140.00	141.00
Assoc. Bearing (100)	386.25	387.50	382.50	382.50
Auto. Products (10)	13.00	13.25	12.50	12.50
Bajaj Auto (100)	1230.00	1250.00	1200.00	1230.00
Bajaj Elect. (100)	165.00*	—	—	165.00*
Bayer (India) (100)	207.50	207.50	202.50	207.50
BASF (10)	39.00	37.00	37.00	37.00
Best & Crompton (10)	33.50	35.00	34.00	35.00
Bhadrachalam Paper (10)	15.00	14.50	14.25	14.50
Bimetal Bearings (10)	28.00	28.00	26.25	27.00
Blue Star (10)	37.50	38.50	36.50	38.50
Bombay Burmah (25)	45.50	46.00	45.00	45.50
Bombay Oxygen (100)	115.00	120.00	115.00	117.50
Bombay Suburban (100)	136.25	137.50	137.50	137.50
Cadbury (10)	24.00	23.75	23.00	23.00
Camphor Allied (100)	185.00	—	—	185.00*
Ceat Tyres (100)	200.00	200.00	197.00	200.00
Central Ind. Spg. (50)	43.00	45.00	42.00	45.00
Century Enka (100)	605.00	610.00	605.00	605.00
Chemical & Fibres (10)	19.25*	19.00	18.00	19.00
Colour Chem (100)	195.00	202.50	192.50	200.00
Corom. Fert. (10)	23.00	—	—	23.00*
Crompton Greaves (100)	333.75*	340.00	340.00	340.00
Cyanamid India (10)	27.00	29.00	27.00	27.00
Dawn Mills (50)	58.00*	—	—	58.00*
Elecon Eng. (10)	34.00	33.50	32.00	33.50
Emore Ind. (15)	19.00*	18.50	18.50	18.50
Ennore Foundries (10)	40.00	39.50	39.50	39.50
Escorts (10)	39.50	39.50	37.25	37.25
Ferro Alloys (100)	195.00	205.00	195.00	200.00
FGP (10)	16.00	16.00	15.25	15.25
Finlay (100)	80.00*	80.00	70.00	80.00
Gammam India (10)	14.00	14.00	13.50	13.50
Garware Paints (10)	18.50*	18.25	18.25	18.25

	Closing quotations 7-8-82	High	Low	Closing quotations 14-8-82
	Rs.	Rs.	Rs.	Rs.
German Remedies (10)	38.00	38.00	37.00	37.50
Gokak (10)	15.50	15.50	15.00	15.50
Great E. Shipping (10)	17.00	16.75	15.50	16.50
Gujarat Alkali (10)	44.50	45.50	44.00	44.00
Guj. Narmada (10)	11.35	11.75	11.25	11.25
Gujarat Steel Tubes (100)	300.00	295.00	295.00	295.00
Herdillia Chem. (10)	22.00	—	—	22.00
Hind Brown (100)	286.25	285.00	282.00	282.50
Hind Ferodo (10)	35.00	—	—	35.00
Hindustan Sugar (100)	212.50	227.50	215.00	215.00
Hindoostran Spg. (250)	182.50	192.50	188.75	188.75
Hoechst Dyes (10)	24.50	24.00	24.00	24.00
IDL, Chemicals (10)	15.00	15.00	15.00	15.00
Indian Explosive (10)	21.00	20.50	20.00	20.50
Indian Hotels (10)	56.00	59.00	56.00	59.00
Industrial Cable (10)	30.00*	—	—	30.00
Ingersoll Rand (10)	158.00	159.00	154.00	159.00
J. K. Cotton (10)	13.00	—	—	13.00
Jayant Paper (100)	142.50	142.50	137.50	137.50
Jyoti (10)	22.00	22.25	21.50	21.75
Kamani Eng. (10)	65.50	66.50	65.00	66.50
Khand, Ferro (100)	135.00	125.00	125.00	125.00
Khatau (100)	200.00	205.00	195.00	195.00
Kirloskar Cummins (100)	622.00	617.50	592.50	592.50
Kirloskar Oil (10)	22.50	22.75	22.00	22.50
Kobinoor Mills (100)	52.00	53.00	52.00	53.00
Laxmi Vishnu (100)	40.00*	45.00	45.00	45.00
Madura Coats (10)	18.25	18.25	17.50	18.00
Mafatlal Eng. (100)	105.00	103.00	100.00	101.00
Mafatlal Ind. (125)	307.50	315.00	306.25	315.00
Mafatlal Fine (100)	167.50	167.50	165.00	167.50
Maharashtra Sugar (50)	35.00	35.00	35.00	35.00
Mahindra Ugin (10)	47.00	44.00	41.00	42.00
Morarjee (100)	190.00	—	—	190.00
Mysore Cement (10)	36.00	36.50	35.00	36.50
National Rayon (100)	337.50	335.00	325.00	330.00
New Gr. Eastern (100)	70.00*	50.00	50.00	50.00
New Stand. Eng. (100)	110.00	110.00	106.00	110.00
Otis Elevator (10)	32.00	32.00	30.00	31.00
Pfizer (10)	24.50	24.00	23.50	24.00
Phaltan Sugar (50)	28.00*	—	—	28.00
Podar Mills (10)	5.50	—	—	5.50
Polychem (50)	50.00	52.00	47.50	52.00
Polyolefins Ind. (100)	272.50	270.00	265.00	270.00
Premier Const. (60)	91.00	92.00	88.00	92.00
Raghuvanshi (100)	122.50*	—	—	122.50
Rallis India (100)	130.00	180.00	180.00	180.00
Raymond Wool (10)	39.00	39.00	37.50	38.00
Rohit Pulp (100)	150.00*	—	—	150.00
Sandoz (10)	27.75	29.00	27.50	27.75
Sandvik Asia (100)	330.00	325.00	322.50	325.00
Saurashtra Cement (100)	130.00*	132.50	132.50	132.50
Shri Dig. Cement (100)	242.50	255.00	246.25	255.00
Shree Niwas (100)	75.00*	—	—	75.00
Shree Ram (100)	60.00	—	—	60.00
Simplex (50)	60.00*	—	—	60.00
SLM-Maneklal (100)	185.00	185.00	162.50	185.00
Special Steels (100)	83.00	—	—	83.00
Stretch Fibres (10)	9.00	9.50	9.00	9.25
Surat Electric (100)	104.00*	—	—	104.00
Swadeshi Polytex (10)	15.00	15.50	14.50	14.50
Swan Mills (100)	130.00*	140.00	135.00	135.00
Synthe & Chem (100)	85.00	86.00	84.00	85.00
Tata Hydro (100)	110.00*	—	—	110.00
Tata Mills (25)	19.00	18.00	18.00	18.00
Tata Power (100)	111.50*	105.00	102.00	102.00
Tata Yodogawa (100)	132.50	135.00	130.00	135.00
Tata Finlay (10)	11.00	11.00	10.50	10.75
Texmaco (10)	43.50	—	—	43.50
United Carbon (100)	160.00	162.50	162.50	162.50
Vulcan Laval (10)	29.50	31.25	30.00	31.25
Walchand Nagar (10)	29.00	27.50	27.00	27.50
Warner Hind. (10)	22.50	22.50	22.50	22.50
West Coast Paper (100)	91.25	90.00	87.50	90.00
Wimro (10)	11.00	11.00	10.75	11.00

Notes: Figures within brackets indicate the paid-up value of shares. xd-Ex-dividend, cd-Cum-dividend, xr-Ex-right, Cr-Cum-right.
(a) An asterisk mark after the quotation indicates the closing prices of the last official trading and not of the date indicated in the columns.
(b) The dash (—) in the columns for 'High' and 'Low' mean that no official trading in the share had taken place during the period under report.

Market Gossip

Lockers linked to size of deposits?

THE reported refusal of some banks to provide safe deposit lockers to their depositors unless the latter were prepared to deposit large amounts as fixed deposits has raised the question of the legality and reasonableness of such a stand by the banks. Mr S. Divakara, joint honorary secretary, All India Bank Depositors' Association, writes: "This is against banking regulations. Fixed deposits have nothing to do with locker facilities being made available to customers. It is an independent contract between the depositors and the bank". He has asked instances of such refusal to be brought to the notice of the Chief Officer, Department of Banking Operations and Development, Reserve Bank of India. The point is that the need for security of valuables is no less in the case of poor persons than in the case of rich persons. On the other hand the capacity of the poor persons to recoup a loss is very much less. To deny the facility of safe deposit lockers to small depositors who require these is thus a cruel blow to the philosophy of serving the interest of the less privileged to which the banks are wedded formally.

Opposition to "rational price" for copper

NON-FERROUS metal trade and industry are vociferous in their opposition to the move for the introduction of a "rational price" for India-made copper. Since the existing parity in prices with imported copper has become inconvenient to the public sector Hindustan Copper Ltd. (HCL), in view of the current low prices of copper in the international market, the proposal for a "rational price" has been mooted. HCL's problem is the massive power cuts in force in Rajasthan, where the Khetri copper plant is located and its production is most likely to suffer, raising its unit cost of production. Wire bars and cathodes supplied by HCL need to be cut into smaller pieces to be fed into the furnace and, according to HCL, cathodes are less expensive in this regard. Metal trade has resented the reduction in the discount in copper cathodes from Rs 1,000 per tonne to Rs 500 per tonne. "Looking to the actual extra costly cutting,

enough melting loss and other expenses, etc in copper cathodes," the Bombay Metal Exchange Ltd has made a representation to the HCL.

SICOM sickness

MORE than half the units which were in production with the assistance from the State Industrial and Investment Corporation of Maharashtra (SICOM) have turned sick, according to Mr H. G. Vartak, Chairman of SICOM. In a talk at the Indian Merchants' Chamber in Bombay recently he said that 1200 units out of a total of 2253 assisted units in production had been identified as sick. A state-level committee constituted by SICOM to tackle the problem of the sick units has prepared an action plan for their revival and the SICOM plans to nurse these units back to health.

Extension for cotton scheme

THE monopoly cotton procurement scheme of the Government of Maharashtra, the term of which expired on June 30, is to be given an extension, according to a decision of the Government of India taken at the end of July. An eight-member committee would supervise the implementation of the scheme by the Maharashtra State Cooperative Marketing Federation (MSCMF), against which complaints were raised by textile mills of non-supply of cotton at a regular pace. The State Government expects to receive a credit of Rs 200 crores from the Reserve Bank of India toward financing the monopoly procurement of cotton by MSCMF. The finance required is estimated at Rs 250 crores. The balance is expected to be derived out of the procurement and sales operations of MSCMF. The scheme has been in operation since 1972 with a break in 1974. The current extension is for two years.

Sugar exports to boost losses?

ALTHOUGH sugar prices in the international markets have been on the decline and India has been incurring losses on sugar exports, the Government of India is reported to be considering an

increase in the quantum of exports—by diverting more sugar from the levy quota to exports and depriving the consumers in India of the supply of sugar at reasonable prices. Sugar price in the London market declined from £178 per tonne on October 30, 1981 to £125 per tonne on August 6, 1982. The State Trading Corporation of India is reported to have concluded deals for the export of 5 lakh tonnes of sugar, of which more than two lakh tonnes have already been exported.

Jute: Rising costs and falling demand

THE chairman of Indian Jute Mills' Association/(IJMA) has described the industry as "financially broke". As jute mills, caught in a trap of rising costs and demand recession, had exhausted all their resources, they should be given working capital in the form of term loans by the banks on concessional terms. The revitalisation of mills demands stimulation of demand for jute goods within the country and formulation of measures to step up shipments abroad. The jute fund to be created by the levy of a cess on the value of jute goods cleared for sale, he suggests, will have to be utilised in such a way that the industry is able to step up exports by at least 50,000 tonnes a year.

Credit: Rs 1,453 crores blocked by sick units

A YEAR ago, on June 30, 1981, the sick industrial units in the large scale sector were blocking over Rs 1,453 crores. Of the 422 sick units in this sector as many as 107 were in West Bengal, followed by 88 units in Maharashtra and 50 units in Uttar Pradesh and the rest. Textiles, which owed Rs 406 crores, and engineering, which owed Rs 320 crores, accounted for the largest number of sick units. The Union Minister of State for Industry, while disclosing these facts before the Rajya Sabha, did not indicate how many of the sick units were working and how many had suspended production. Nor did he say how many more units had entered the sick list since June last year. Another point is that sickness is spread to small scale units as well and if account is taken of the funds blocked with those, the total amount of funds immobilised by industrial sickness would be very much more than Rs 1,453 crores.

NOTICE

THE ASSOCIATED CEMENT COMPANIES LIMITED

(Regd. Office : Cement House,
121, Maharshi Karve Road,
Bombay 400 020)

(General Notice under the Monopolies and Restrictive Trade Practices Act, 1969)

1. It is hereby notified for the information of the public that THE ASSOCIATED CEMENT COMPANIES LIMITED propose to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities. Brief particulars of the proposal are as under :—

- i) Name(s) Person(s)/body corporate owning the undertaking :—
The Associated Cement Companies Limited,
Cement House,
121, Maharshi Karve Road,
Bombay 400 020.
- ii) Capital structure of the applicant undertaking (as on 31st July, 1981).
 - a) Authorised Capital :

40,00,000 Equity shares of Rs. 100/- each	..	Rs. 40,00,00,000
10,00,000 Unclassified shares of Rs. 100/- each	..	Rs. 10,00,00,000
	..	Rs. 50,00,00,000
 - b) Issued Capital :

33,25,121 Equity shares of Rs. 100/- each	..	Rs. 33,25,12,100
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 - c) Subscribed Capital :

6,07,264 Equity shares of Rs. 100/- each issued as fully paid for consideration other than cash pursuant to contracts	..	Rs. 6,07,26,400
15,63,588 Equity shares of Rs. 100/- each issued for payment in cash	..	Rs. 15,63,58,800
11,52,265 Equity shares of Rs. 100/- each issued as fully paid by way of bonus shares	..	Rs. 11,52,26,500
	..	Rs. 33,23,11,700

iii) Details of the proposed substantial expansion :
a) Names of new goods to be produced, supplied, controlled, or distributed or of new services to be rendered :

Not applicable.

b) In case of substantial expansion of existing activities :

- i) Name of the goods : Portland Cement
- ii) Capacity before expansion : 74.84 lakh tonnes per annum (LTPA) of portland cement as on 31.7.1981 (of the body corporate owning the undertaking which includes 5.74 LTPA installed capacity in respect of its Shahabad Works in Gulbarga Dist., Karnataka State)

iii) Expansion proposed: 10.00 lakh tonnes per annum

iv) Location of the Project :

Tehsil : Chittapur
District : Gulbarga
State : Karnataka

v) Brief outline of the cost of the project, the scheme and sources of finance :

(1) Cost of the Project : Rs. 12,950 lakhs

(2) The Scheme and Sources of Finance :

It is proposed to meet the expenditure by way of internal resource contribution to the extent of 20% and balance 80% by way of term loans from financial institutions.

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein for THE ASSOCIATED CEMENT COMPANIES LIMITED
S. KRISHNASWAMI
MANAGING DIRECTOR

Dated this 27th day of July 1982

DALMIA DAIRY INDUSTRIES LIMITED

11 ABC, ATMA RAM HOUSE,
1, TOLSTOY MARG,
NEW DELHI-110 001.

NOTICE

It is hereby notified for the information of the public that Dalmia Dairy Industries Limited, proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi under sub-sec (2) of 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for the establishment of a new undertaking for the manufacture of Napthalene and BTX mixture & fuel oil with an installed capacity and estimated annual production of 15,000 tonnes each per annum. Other particulars of the proposed new undertaking are as follows :

- 1) Name of the Proposed undertaking : Not yet finalised
- 2) Name(s) of person(s) or authority/authorities proposing to establish : Dalmia Dairy Industries Limited
- 3) Where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking : Board Managed Companies
- 4) Capital structure of the applicant person or authority and of the proposed undertaking :

	Applicant Company	Equity (Rs)
	Authorised	: 3,56,00,00
	Subscribed	: 60,00,00
	Paidup	: 60,00,00
	Proposed Company	
	Authorised	: 5,00,00,000
	Subscribed	: 4,00,00,000
	Paidup	: 4,00,00,000
- 5) Proposed location of the undertaking : District Aligarh, Uttar Pradesh
- 6) Brief outline of the cost of the project, the scheme and sources of finance :

	(Rs in lacs)
Estimated cost of project	1200
i) Longterm borrowings	800
ii) Share capital	
a) Public Issue	196
b) By DDIL	160
c) By financial institution (Pickup)	44

Any person interested in the matter may make a representation to the Secretary, Department of the Company Affairs, Government of India, Shastri Bhawan, New Delhi, within 14 days from the date of the publication of this notice, intimating his views on the proposal and indicating the nature of his interest thereon.

For DALMIA DAIRY INDUSTRIES LIMITED
Sd/ (A. D. AGRAWAL)
SECRETARY

Registered Office

Ghana Sewar Bypass Road
Bharatpur, Rajasthan.

Dated : 10th August, 1982

Note : Although the company is not registered under Section 26 of the MRTP Act, 1969, but since a notice was received from the Government to show cause as to why the company should not be registered under Section 26 of the MRTP Act, 1969 which has already been replied denying the case for registration, this notice is being published out of abundant caution.

COMMODITIES

Cotton firm

Bombay, August 16

Cotton prices firmed up during the last week on apprehensions of a fall in acreage under cotton in the wake of the delayed monsoon and the fears of a lower crop outturn on that account.

Informed cotton circles fear that there could well be a 10 to 15 per cent fall in the acreage sown to cotton this time on account of a delay of six to eight weeks in the onset of the monsoon. The crop is expected to be around 76 lakh bales, should there be no worsening of the monsoon in the weeks ahead. If there is any undue precipitation plant growth could be affected.

There have been no signs of any settlement of the textile strike in Bombay. Meanwhile, there have been disquieting reports from Madras that the bonus issue would come up for heated discussions between mill management and textile labour in Tamil Nadu. The Centre has already indicated to the mill industry that bonus should be paid as per provisions made in the Bonus Act. It may be mentioned here that the controversial SIMA formula, the result of a long-drawn-out struggle between unions and mills, stipulated payment over and above Bonus Act provisions.

DUNCAN BROTHERS AND COMPANY LIMITED

NOTICE

The Eightythird Annual General Meeting of the members of the company will be held on Monday, the 27th September 1982 at 11.30 A.M. at the Registered Office of the company.

It is hereby notified pursuant to Section 154 of the companies Act, 1956 that the register of members and share transfer books of the company will be closed from 14th September to 7th September, 1982, both days inclusive;

DUNCAN BROTHERS AND COMPANY LIMITED

H. C. MATHUR
Secretary

Registered Office :
Duncan House,
Netaji Subhas Road,
Calcutta 700 001.

The following has been the trend of prices of some of the leading varieties of cotton :

	(Rs per candy)	
	August 14	August 6
Kalyan	3,550-3,800	3,450-3,600
Saurashtra (CO2)	3,450-3,750	3,700-3,800
Maharashtra H4	4,760-4,800	4,750-4,850
MCU 5 Guntur	5,000-5,100	4,900-5,250
Shankar	4,850-5,400	5,000-5,200
Jaydhar	...	3,500-3,800
Wagad	3,550-3,650	3,400-3,450

Yarn steady

Bombay, August 16

A steady trend prevailed in the local yarn market during the past week. The prices of 150D NRC, 120D NRC, 150D CR and 120D CR remained unchanged at Rs 56.17, Rs 59.74, Rs 54.23 and Rs 58.37 respectively. The price of 100D SIV was unchanged at Rs 69.38 while that of 150D acetate remained at Rs 50.66.

Groundnut oil reacts

Bombay, August 16

After the previous week's firm trend, groundnut oil reacted on quiet tendency in Madras and limited demand. Besides, sellers were active. The price receded by Rs 1.82 to Rs 144.56 per 10 kg. Groundnut, however, hardened further on limited stocks available in the market. Karad bold, Saurashtra bold and Saurashtra quality gained further Rs 12 each at Rs 642, Rs 647 and Rs 647 respectively per 100 kg.

Castor oil was steady on scattered export inquiries. Castor commercial oil ruled at Rs 75.25 and castor BSS oil at Rs 81 per 10 kg. Castor seed, on the other hand, declined because of discouraging advice from producing centres. Madras small and Kanpur bold eased by Rs 4 each to Rs 342 and Rs 332 per 100 kg.

Linseed and its oil indicated divergent trends. The former improved by Rs 10 to Rs 470 per 100 kg while the latter moved down by 52 paise to Rs 119.08 per 10 kg as a result of quiet tendency in groundnut oil.

Among cakes, groundnut expeller and castor declined by Rs 50 each to Rs 1,775 and Rs 775 per tonne. De-oil was steady at Rs 1,400 per tonne while cottonseed rose by Rs 25 to Rs 1,725 per tonne.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils :—

	13-8-82	6-8-82
G. nut Karad bold	642.00	630.00
G. nut oil	144.56	146.38
Cast. Md. Sm.	342.00	346.00
Cast. oil com.	75.25	75.25
Cast. oil BSS	81.00	81.00
Linseed bold	470.00	460.00
Linseed oil	119.08	119.60

Grains steady

Bombay, August 16

A steady tendency prevailed in foodgrains during the week. In cereals, wheat ruled quiet on account of slack demand. Arrivals in the city were good. Advices from producing centres were steady. The inflow from Gujarat averaged 3,000 bags daily. The Sehori Pissi variety was quoted at Rs 280-350 per quintal and the Sonakalyan

KINETIC ENGINEERING LIMITED

Regd. Off. D1 Block, Plot No. 18/2
Chinchwad, PUNE-411 019.

NOTICE

It is hereby notified for the information of the public that Kinetic Engineering Limited has applied to the Central Government in the Department of Heavy Industry, New Delhi, for re-endorsement of capacity in terms of Ministry of Industry, Dept. of Industrial Development Press Note No. 10/97/81/LP dated 21-4-1982.

Brief Particulars of the proposal are as under :—

- (i) Name of the Person/Body : Kinetic Engineering Ltd, Corporate owning the Undertaking
- (ii) Capital Structure of the applicant undertaking : Authorised Capital Rs 2,00,00,000/- (Rupees Two Crores only)
Issued and subscribed capital Rs 60,00,000/- (Rupees Sixty lacs only)
Paid-up Capital (as on 30-6-1981). Rs 59,83,250/- (Rupees Fifty nine lacs eighty three thousand two hundred fifty only)
- (iii) Details of the re-endorsement of capacity :—
 - (i) Name of goods : Moped
 - (ii) Capacity before re-endorsement : 24,000 Mopeds per annum
 - (iii) Proposed capacity for which re-endorsement is sought : 1,01,497 Mopeds per annum
 - (iv) Location of the Project : Kinetic Engineering Ltd, Nagar-Dhond Road, Ahmednagar, Maharashtra.

2. Any person interested in the matter may make a representation to the Secretary, Dept. of Heavy Industry, Government of India, New Delhi within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

For KINETIC ENGINEERING LTD,

Sd/-

P. M. KADAM
COMPANY SECRETARY

Dated this day of 13th August, 1982

FORM 1-A

(See Rule 4A(1))

Form of general notice to be given to the members of the public before giving a notice to the Central Government under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969.

NOTICE

It is hereby notified for the information of the public that Bimetal Bearing Limited, proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under Sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities at its bearing plant at Coimbatore, Tamil Nadu. Brief particulars of the proposal are as under:—

- i) Name of Person/body corporate owning the undertaking : Bimetal Bearing Limited
- ii) Capital structure of applicant undertaking : Authorised Capital
- | | |
|--|-----------------|
| 20,00,000 Equity shares of Rs. 10/- each | Rs. 2,00,00,000 |
| Issued subscribed and paid-up capital | |
| 19,12,500 Equity shares of Rs. 10/- each | Rs. 1,91,25,000 |
- iii) Details of the proposed substantial expansion :
- a) Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered : Not applicable
- b) In the case of substantial expansion of existing activities:—
- i) Name of goods : Thinwall engine bearings, bushings and thrust washers
- ii) Capacity before expansion : 60 lakh nos.
- iii) Expansion proposed : Increase in capacity from 60 lakh Nos. to 94.11 lakh Nos. based on one-third over actual production achieved during April 1981 to March 1982 at 70,58,174 Nos. in terms of Press Note No. 10/97/81-LP dated 21-4-1982 and Press Note No. 10/97/81-LP Dated 3-5-1982 issued by the department of Industrial Development, Ministry of Industry, New Delhi.
- iv) Location of the project for substantial expansion : Coimbatore, Tamil Nadu
- v) Brief outline of the cost of the project, the scheme and sources of finance : The approximate cost of the project works out to Rs. 187 lakhs the entire amount will be met out of internal resources.

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of his interest therein.

For BIMETAL BEARINGS LIMITED
M. M. SWAMINATHAN
SECRETARY

Dated this 14th day of August, 1982.

PUBLIC NOTICE UNDER RULE 4A (1) OF THE MONOPOLIES & RESTRICTIVE TRADE PRACTICES RULES 1970

It is hereby notified for the information of the Public that Garware Nylons Limited proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for further processing of tyre cord yarn by playing and cabling of tyre yarn into tyre cord/weaving and other processes, with an installed capacity of 2,000 tons per annum. Other particulars of the proposed new undertaking are as under:—

- (i) Name of the proposed undertaking : GARWARE NYLONS LIMITED.
- (ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking : GARWARE NYLONS LIMITED. The Board of Directors of the Company consists of :
Shri B. D. Garware (Chairman & Managing Director)
Shri A. B. Garware (Vice Chairman & Dy. Managing Director)
Shri Rohit C. Melita
Shri S. B. Garware
Shri B. N. Adarkar
Shri C. B. Garware
Shri A. R. Wadia
Shri R. B. Garware (Executive Director)
Shri J. N. Saxena

- (iii) Capital structure of the applicant person or authority and of the proposed undertaking :
AUTHORISED :
1,47,00,000 Equity Shares of Rs. 10/- each Rs. 14,70,00,000
30,000 9.3% Cumulative Redeemable Preference Shares of Rs. 100/- each Rs. 30,00,000
Rs. 15,00,00,000

ISSUED, SUBSCRIBED & PAID-UP :
64,80,000 Equity Shares of Rs. 10/- each Rs. 6,48,00,000

- (iv) Proposed location of the new undertaking : Sarole Village, Bhore Taluka, Maharashtra.
- (v) Brief outline of the cost of project, the scheme and sources of finance :
Cost of the Project : (Rs. in lakhs)
Land 10.0
Buildings 125.0
Plant, Machinery & Equipment 400.0
Total— 535.0

Scheme :

Establishment of a new undertaking at Sarole Village, Bhore Taluka, Maharashtra for further processing of tyre cord yarn by playing and cabling of tyre yarn into tyre cord/weaving and other processes.

Sources of Finance : (Rs. in lakhs)
Borrowings 135.0
Internal Resources 200.0
Sales tax Incentive 200.0
Total— 535.0

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

REGD. OFFICE : For GARWARE NYLONS LIMITED
CHANDER MUKHI, P. G. KINIKAR
NARIMAN POINT, SECRETARY
BOMBAY 400 021.

Dated 12th day of August, 1982.

riety at Rs 245-250 per quintal.

Trading in rice was at a low level. The inflow was about 1000 bags per day. The basmati variety ruled steady at Rs 800-850 per quintal and the arthi kolam variety at Rs 400-450 per quintal.

In coarse grains, prices ruled steady. Jowar was placed at Rs 150-215 per quintal, bajra at Rs 170-260 per quintal, barley and maize at Rs 130 per quintal and Rs 172-173 per quintal respectively.

Among pulses, gram dal declined by Rs 15 to Rs 325-355 per quintal due to slack demand. Advices from producing centres were steady. Moong (humki) dropped by Rs 32 to Rs 330-335 per quintal. Masoor ruled steady at Rs 360-420 per quintal. Tur dal and urad (handesh) were offered at Rs 550-650 per quintal and Rs 5-430 per quintal respectively.

Sugar slumps

Bombay, August 16

Sugar prices in the local market declined sharply owing to increased pressure of supplies consequent upon the extra release of 50,000 tonnes by the Union Government. The price of sugar C-30 declined by Rs 10 to Rs 498-515 per quintal. Risk festival demand from

local and upcountry buyers had no impact on prices. The undertone was weak. Stockists anticipated a further fall in prices. The city stocks at the weekend were placed at 3,705 bags. The price of C-30 grade sugar on August 14, 1982 was lower by Rs 139 per quintal than that on the corresponding date a year ago.

The state cooperative factories quoted Rs 475-482 per quintal for both grades as against Rs 482-487 per quintal at the beginning of the week.

Money easy

Bombay, August 16

Conditions in the Bombay short-term money market continued to be easy during the past week. Interest rates opened at five per cent and eased to 3.5 per cent on August 13, 1982. However, it firmed up to five per cent at the close of the week.

Gold down, silver up

Bombay, August 16

The price of gold declined while the price of silver increased in the Bombay bullion market during the past week. Standard mint gold opened at Rs 1,665 per 10 gms and closed lower at Rs 1,655 per 10 gms. Ready silver (.999 fineness) opened at Rs 2,565 per

kg and closed higher at Rs 2,590 per kg.

Aggregate deposits decline

Bombay, August 16

Aggregate deposits of all scheduled commercial banks declined by Rs 54.78 crores to Rs 46,324.94 crores during the

week ended August 6, 1982. Bank credit contracted by Rs 40.56 crores to Rs 30,451.38 crores. The balances of banks with the Reserve Bank of India (RBI) increased by Rs 352.65 crores to Rs 5,115.31 crores while their borrowings from the RBI declined by Rs 4.48 crores to Rs 413.55 crores.

SALGAOCAR ENGINEERS PRIVATE LIMITED

NOTICE

It is hereby notified for the information of the public that SALGAOCAR ENGINEERS PRIVATE LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 for approval for the establishment of a New Undertaking for the production, supply and distribution of Heavy Earth Moving Equipment such as TRACTOR SHOVELS (WHEEL LOADERS) and TRACTOR DOZERS (WHEEL DOZERS), SELF PROPELLED HEAVY DUTY TRAILERS and HEAVY DUTY TRAILERS with total capacity of 250 Nos per annum.

Other particulars of the proposed New Undertaking are as under:

- i) Name of the proposed Undertaking :
SALGAOCAR HEAVY INDUSTRIES LIMITED
- ii) Name (s) of persons or authority/authorities proposing to establish the New Undertaking :
SALGAOCAR ENGINEERS PRIVATE LIMITED
- a) Management structure of the applicant undertaking :
The Board of Directors of the applicant undertaking comprises of—
MR ANIL V. SALGAOCAR
Mrs LAKSHMI A. SALGAOCAR
MR KAMALAKANTH G. DALAL
- b) Management structure of the proposed undertaking :
The initial Board of the new Company will consist of Directors from the promoters group and from the collaborators. Mr. A. V. Salgaocar will be the Managing Director of the New Undertaking.
- iii) Capital Structure :

	Rs. in Lakhs
a) The applicant undertaking :	
Authorised	50
Issued	5
Paid-up	5
b) The proposed undertaking :	
Authorised	500
Issued (proposed)	250
Paid-up (proposed)	250
- iv) Proposed location of the New Undertaking :
District : DHARWAD (A NOTIFIED BACKWARD AREA)
State : KARNATAKA
- v) Brief outline of the cost of the project, the scheme and source of finance :
The cost of the Project is estimated at Rs 1,487 Lakhs. The cost of the Project would be financed by Equity Share Capital, borrowings from term lending institutions and banks, and internal accruals.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, under advice to the Company within Fourteen days from the date of publication of this Notice, intimating his views on the said proposal and indicating the nature of his interest therein.

For SALGAOCAR ENGINEERS PRIVATE LTD

A. V. SALGAOCAR
DIRECTOR

Registered Office :
Angela Dias Building,
Vasco-da-Gama 403 802
GOA
Dated 12th August 1982

CORRIGENDUM

Further to the Notice of Dempo Dairy Industries Limited to the Central Government, in the Department of Company Affairs, New Delhi, which appeared in the Commerce dated 17th July 1982, information against item 3(a) should be amended to read as follows:

It is proposed to produce 1,000 tonnes per annum of Instant Coffee at the Company's existing Dairy at Asangi Village, Jamkhandi Taluka situated in Karnataka State. The total cost of the project is estimated at Rs 250 lakhs which will be financed as follows:

(i) By issue of additional equity share capital	Rs. 75 lakhs
(ii) Through loans from financial institutions	Rs. 150 lakhs
(iii) By way of Central subsidy and sales tax loan	Rs. 25 lakhs
	<u>Rs. 250 lakhs</u>

Sd/-

VASUDEVA V. DEMPO
Director

Dated : 20th August, 1982.

INDIAN ECONOMY: BASIC INDICATORS

By Commerce Research Bureau

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	During the week ended					Percentage variation over		
	July 24, 1982	July 17, 1982	June 26, 1982	July 25, 1981	Week	Month	Year	Two years
Manufactured products	273.8	273.5	271.7	275.8	0.1	0.8	-0.7	3.2
Primary articles	277.4	279.0	273.5	271.8	-0.6	1.4	2.1	17.9
Fuel, power, lubricants, etc.	45.4	455.4	446.5	433.4	—	2.0	5.1	28.2
All commodities	290.7	291.2	287.2	287.5	-0.2	1.2	1.1	11.7

Money and Banking

	During the week ended					Percentage variation over		
	July 30, 1982	July 23, 1982	July 2, 1982	July 31, 1981	Week	Month	Year	Two years
Money supply (M3) (b)	65,701(a)	65,670	65,605	58,901(a)	—	-0.1	11.5	34.2
Bank credit	30,492	30,575	30,445	26,902	-0.3	0.2	13.3	37.6
Aggregate deposits	46,380	46,070	45,529	40,765	0.7	1.9	13.8	38.0
Foreign exchange reserves (a) ..	3,885	3,969	3,803	4,554	-2.1	2.2	-14.7	-2.0

MONTHLY INDICATORS

	Unit	Latest month	Amount/	Previous	Percentage	Recent trend
		Month	Index	month	variation over	(per cent)(c)
					previous month	
Industrial production (crude index) ..	1970=100	June 1982	148.5(a)	161.9(a)	8.3	6.8
Electricity generation (public utilities)	Million kwh	June 1982	10,453	10,603	-1.6	5.6
Exports	Rs crores	March 1982	563	..	..	—
Imports	Rs. crores	March 1982	1,042	..	..	—
Trade balance	Rs. crores	March 1982	-479	..	..	—
Foreign exchange reserves (a) ..	Rs. crores	June 1982	3,803	3,987	-4.6	-19.7
Wholesale price index	1970-71=100	June 1982	284.9	278.3	2.4	0.7
Consumer price index for industrial workers	1960=100	May 1982	462	459	0.7	7.1
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	February 1982	179.6	179.3	0.2	—

ANNUAL INDICATORS

	Unit	1981-82	1980-81	1975-76	1950-51	Percentage variation in 1981-82 over 1980-81	Annual rate of growth(%) between 1975-76 and 1980-82
Population	Crores	69.1(a)	68.4(d)	60.4	35.8	3.2(g)	2.2(e)(h)
Gross National Product (at market prices)	Rs crores	1,38,000(a)	1,25,744	73,907	9,503	17.5(g)	11.2(h)
Per capita GNP (at market prices)	Rupees	1,997(a)	1,855	1,224	265	14.9(g)	8.7(h)
Real national income (Index)	1970-71=100	144.1(a)	137.9	117.1	48.9	7.7(g)	3.3(h)
Real per capita income (Index)	1970-71=100	112.6(a)	109.9	104.9	73.6	5.3(g)	0.9(h)
Agricultural production (Index triennium ending)	1969-70=100	139.3(a)	135.2	124.8	58.5	15.4(g)	1.6(h)
Foodgrains production	Million tonnes	135.0(a)	130.0	121.0	55.0	18.2(g)	1.4(h)
Industrial production (Index)	1970=100	166.4	154.2	119.7(f)	26.5	7.9	12.2
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.9	30.0	18.6	0.18	36.3	14.0
Electricity generation (public utilities)	Billion kwh	122.9	111.6	79.2	5.3	10.1	7.6
Exports	Rs crores	7,358	6,711	4,043	601	9.6	10.5
Imports	Rs crores	13,110	12,524	5,265	650	4.7	16.4
Trade balance	Rs crores	-5,752	-5,813	-1,222	-49	—	—
Foreign exchange reserves*	Rs crores	3,797	5,316	1,702	911	-28.6	14.3
Money supply (M3) (b)*	Rs crores	62,468	55,451	22,286	2,336	12.7	18.7
Bank credit*	Rs crores	29,642	25,371	10,877	547	16.8	18.2
Aggregate deposits*	Rs crores	43,820	37,988	14,155	881	15.4	20.7
Wholesale price index (average)	1970-71=100	280.2	257.3	173.0	47.5	8.9	8.4
Consumer price index for industrial workers*	1960=100	457	420	286	..	8.8(g)	8.1(h)
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	..	..	..	..	..	..

Notes: (a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year. (d) As on March 1, 1981 as revealed by 1981 Census (e) Between 1971 Census and 1981 Census. (f) Figures relate to 1975 and 1950 respectively. (g) Percentage variation in 1980=81 over 1979=80 (h) Annual rate of growth (%) between 1975=76 and 1980=81.

* Financial year-end data

** Calendar year-end data

(—) = Nil or negligible

(..) = Not available

INDO-GERMAN COOPERATION

—A SURVEY

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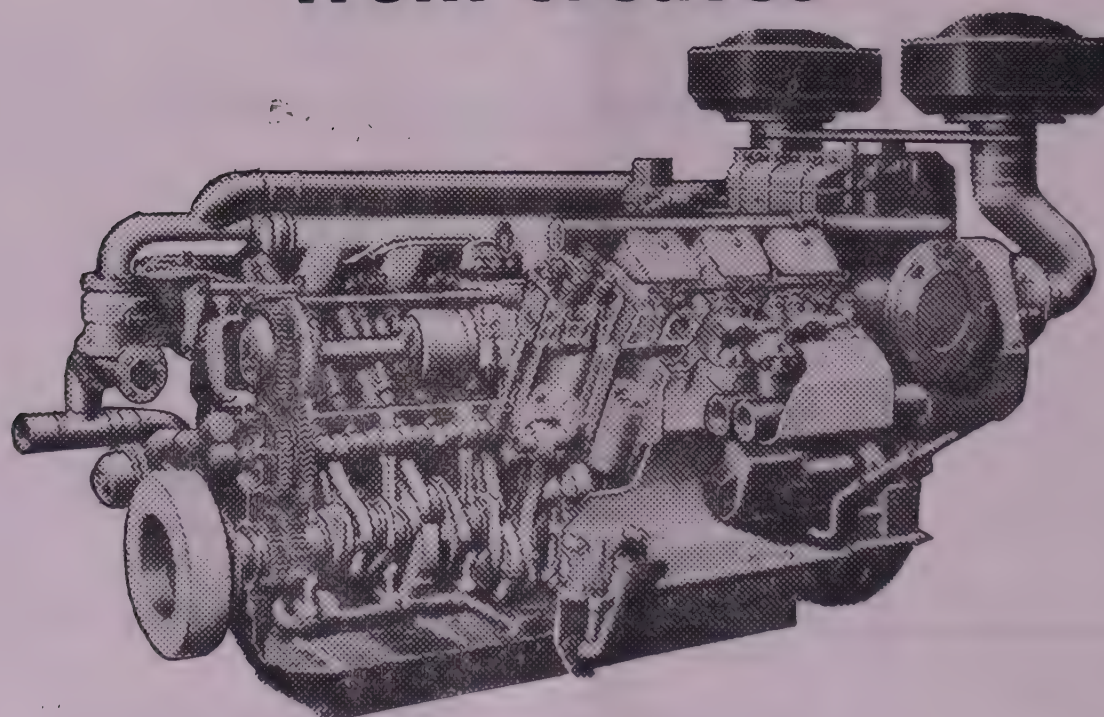
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Trade and economic relations between India and Germany

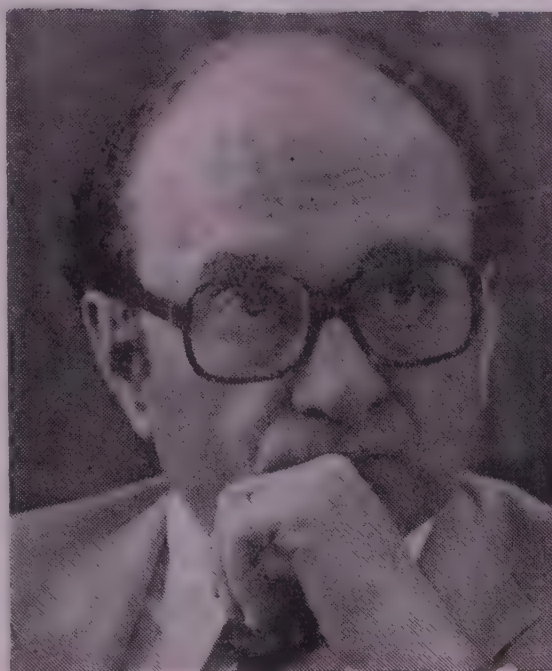
IN October 1980 I expressed the view in an article in *Commerce* that prospects for an expansion of Indo-German trade and an intensification of economic relations in the eighties were favourable. So far, developments have fulfilled and, in some areas, even surpassed my expectations.

An important factor in this context has been the success of India's economy during the past two years. Improved performance in industry coupled with removal of bottlenecks in key infrastructural sectors have resulted in impressive growth rates. The overall resilience of India's economy is reflected in the degree of price stability achieved which probably at present is unique in the world and a cause of envy for many a responsible economist. At the same time, the sound development strategy and pragmatic economic policies adopted by the Government of India prove to be a vital element in the progress of Indo-German trade and economic relations.

Looking at developments in our bilateral trade we find that a further marked expansion in volume and value has taken place during recent years. In 1981 the exchange of goods between our two countries reached a new record level of more than 3.5 billion DM (equal to approximately Rs 1,350 crores). This amount represents an increase by 40 per cent compared with the previous year. Among the trading partners of the Federal Republic of Germany in South and South-East Asia, India at present holds the 6th position as supplier and 4th place as buyer country. At the same time it is noteworthy that the emphasis of German imports from India has been shifting more and more from traditional commodities to industrial products, notably textiles and garments as well as leather and leather products. Besides, exports of Indian engineering goods to Germany, in particular tools, machine tools, pumps, accessories for motor vehicles and bicycles, have picked up.

Trade gap

I am aware, of course, that there



By Dr OTTO GRAF LAMBSDORFF

Federal Minister for Economic Affairs

has also been a substantial increase in 1981 in India's trade gap vis-a-vis the Federal Republic of Germany and the European Economic Community as a whole. India has received wide acclaim from the IMF, the World Bank and the members of the India Consortium for pursuing a policy of liberalising imports of machinery and raw materials in spite of the sizable overall trade deficit India is facing at present. I fully share the view expressed that easing the access to imported inputs for India's industry is vital for increasing and improving production for both domestic and export markets.

With the large import bill and the deterioration in the terms of trade India has to cope with, I appreciate the importance attached to expanding and diversifying Indian exports. The Federal Republic of Germany has been supporting India's efforts in this field both at the bilateral level and in the framework of the EEC. The new Commercial and Economic Cooperation Agreement concluded in 1980 between India and the EEC provides additional scope also for measures

in the field of export promotion. At the meeting of the Joint Commission set up under this agreement, which took place in January 1982 at New Delhi, the question of improving access for Indian commodities to European markets was accorded particular attention. As a follow-up a special Indo-EEC working group has started to examine possibilities for increasing exports in sectors of particular interest to India, such as marine products, tobacco, coffee, leather and leather goods and hand-knotted carpets.

Joint ventures

In Indo-German economic relations joint ventures and technical collaborations, though perhaps of a less impressive dimension than our bilateral trade, play a highly important part, too. I am encouraged to note that the level of German capital investments, after stagnating for several years, has increased again in 1980 and 1981. In fact, last year the German share of total new foreign investment approved by the Indian Government was almost 50 per cent. At present more than 500 Indo-German industrial collaborations operate in India, of which about one quarter are joint ventures with German financial participation.

I am convinced there is still considerable scope for cooperation between Indian and German industry as both sides stand to gain by matching their resources. This assessment was confirmed by a delegation of the BDI, Germany's federation of industries, which visited India in November 1980. Again, the pragmatic attitude taken by the Government of India in regard to foreign investment as vehicle for the transfer of technology is encouraging.

I do not wish to conceal that occasionally problems arise in some areas of industrial cooperation, which have been discussed at government level in a most cooperative manner. In the majority of cases mutually acceptable solutions have been found. Primarily, the forum for dealing with these matters is the Indo-German Commission for Industrial and Economic Cooperation (for-

merly named Indo-German ad hoc Commission for Industrial Cooperation, the scope of which has been enlarged). Apart from examining impediments in the field of industrial collaborations, the main object of the Indo-German Commission is to explore the possibilities for further economic cooperation in various sectors. It is due to meet again in the latter part of this year.

Important element

It should not be left without mention that supplies of plant and equipment constitute an important element in the transfer of technology between our countries. It has been the policy of the Federal Government to make available to developing countries, including India, public loans on IDA-terms for industrial projects in priority areas jointly selected by the two respective governments. Of the 360 million DM development assistance loan Germany is granting India for 1982 an amount of 225 million DM is

earmarked for the expansion of the lignite project Neyveli and for the power plants of Korba and Ramagundam. For the two latter projects the means available are to be augmented by combination with export credits guaranteed by the German Government. In such mixed financing the percentage of interest arrived at remains well below the market rate.

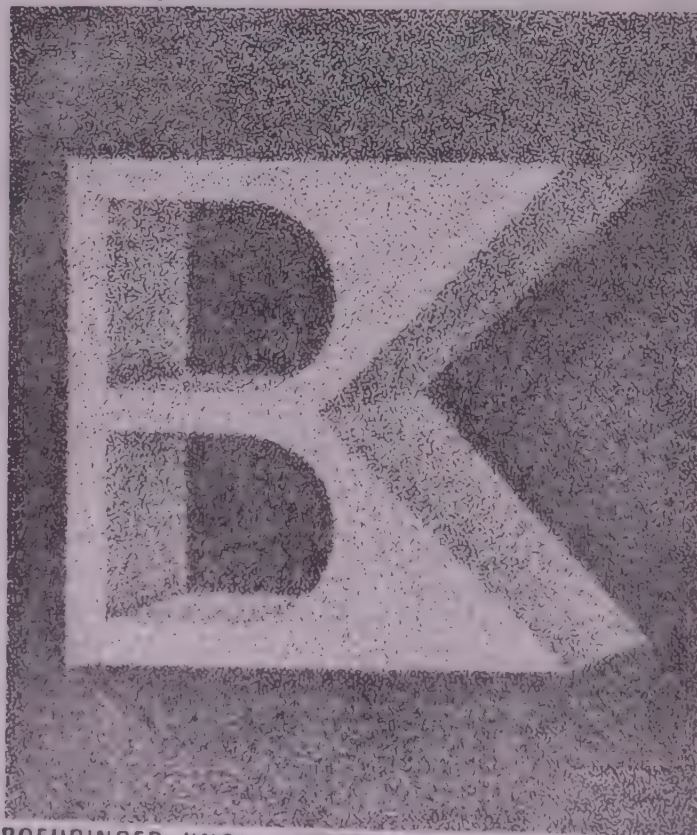
Priority areas

Although India continues to be the main recipient of German development assistance the public means available in Germany (as in other donor countries) are limited and have to be restricted to priority areas such as energy, power and agriculture. Beyond this India's requirements for financing projects in other sectors with good conditions for competitive production) are considerable. I think India has therefore taken an important step by making itself of the facilities offered by the private capital market. As

in the past, the Federal Government is ready, within its possibilities and up to certain limits, to give export credit guarantees for supplies to India of machinery and equipment manufactured in Germany.

I feel there is reason to be optimistic about the future prospects of Indo-German economic relations. As the visit to Germany of a delegation of AIEI in April of this year brought out there is considerable potential for developing trade in both directions in a vast range of engineering sectors and for industrial collaborations including third country projects. The visit also showed again the importance of direct contacts between operators from our two countries. I therefore welcome plans for arranging further visits of similar delegations and seminars in the foreseeable future. Furthermore, Germany very much looks forward to the special presentation of India as partner country at the Hanover fair in 1984.

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The future of Indo-FRG relations

By Dr. A. M. KHUSRO

Ambassador of India in the FRG

THE relations between India and Germany have flourished in the past in the fields of Indology, philosophy and linguistics. But more recently, new relationships and strong ones have emerged in the fields of commerce and trade, investment and technology transfers and scientific development although it must be said that cultural relations are also getting strengthened with a great deal of give and take among artists, scholars and tourists.

The two-way trade between India and West Germany was about half a billion Deutsch-marks or two billion rupees in 1971. From then onwards, it has gone up to 3½ billion Deutsche-marks or about 14 billion rupees in 1981. This 600 per cent increase in only a decade is a phenomenon worth writing home about. These are not ordinary figures and an experience of such a rapid expansion in trade is rather rare for India in relation to any country of the world. In fact, the chances are that from being our third largest trade partner after the USA and the United Kingdom, West Germany is well-poised to become the second largest partner overtaking the United Kingdom in due course.

The balance of trade has been generally favourable to the Federal Republic of Germany. In 1981, for example, while India exported goods worth DM 1,280 million to West Germany, the latter exported goods worth DM 2,250 million to India. Even so, the 13 per cent increase in India's exports to West Germany in 1981 would have been an impressive figure had not the Germans exported to India an additional 62 per cent in that year. This phenomenal increase, of course, partly represents the resilience and the saleability of West German products even today. But in part it also reflects the decline in the value of the Deutsch-mark owing to a serious adverse balance which West Germany has been having for the last two or three years and the recession in Europe and the United States which makes it difficult for West Germany to sell its goods and

services in the highly developed world in the same quantum as before.

The rise in India's exports to the FRG is in sharp contrast to the dismal performance of Indian exports to other EEC countries. This increase partly testifies to the relatively liberal character of the West German economy and partly exhibits the



Dr Ali Mohammad Khusro

need to nurture the West German market. Our exports to the FRG could be much larger if there were fewer complaints from the West German importers that the goods supplied from India deviate from the original samples in several cases, that the time schedule of exports is not maintained and that the capacity of the medium-size Indian exporter is not adequate to undertake bulk orders.

India's major exports to the FRG are garments, carpets leather and leather goods, oil cakes, tea and precious stones although in recent years industrial products like hand tools, pumps, castings etc have been gaining ground. FRG continues to be a major supplier of machinery, capital goods, chemicals, pharmaceuticals,

electro-mechanical and electrical goods.

Exciting developments

In the realm of Indo-German relations, the most exciting developments, however, are outside the field of trade. A successfully industrialising country like India moves on from being an importer of goods in the beginning to being an import substitutor, that is, a producer at home of the goods it was previously importing. In order to be able to do so, it has to import a great deal of critical material and capital goods for many years. This is the phase India has been passing through in the past 20 to 30 years. With the import of capital goods, the base of home products, no doubt, expands, but this expansion does not necessarily provide goods of an exportable quality which have to conform to world standards and stand in competition with the production of other often highly industrialised countries.

The next requirement, therefore, is to import technology and it is this combination of efficient technology and capital goods that gives the country not only a wide industrial base for large scale production but also enables it to produce high quality goods of an exportable nature. In this phase India has been able to import a good deal of technology against royalty payments but has also succeeded in getting American and European firms, including West German firms, to collaborate with Indian firms on an equity participation basis in order to transfer technology and to export the product. As many as 150 West German companies are known to be collaborating with an equal number of Indian enterprises and about 1,000 industrial projects are in progress. I once asked a high official of the Indo-German Chamber of Commerce as to what are the instances of projects which have not done well or projects which have been a failure.

"That would be difficult to find," he answered.

Suitable contacts

The great German enterprises, like Siemens, Bosch, Mannesmann Demag, Krupp etc are already acquainted fully with India and have been doing business for many years. But there is now a desire on the part of the middle level and the small scale industrial and commercial concerns in the FRG to do business with India. However, not having a large infrastructure and major overheads to be able to establish offices and representations in India, they are at a loss to know how to undertake the first step in identifying and contacting Indian partners in trade and manufacture. It has been mentioned to many of them that the Indo-German Chamber of Commerce both in Germany and in India, the Embassy of India in Bonn, the India Investment Centre and the various offices of the commercial organisations of the Government of India in Frankfurt and elsewhere could be their guides. In addition, the Association of Indian Engineering Industry (AIEI) is also an excellent friend and would provide suitable contacts. It may even be necessary to have the representatives of the AIEI and the Indian Export Promotion Council available in the Federal Republic of Germany, as in other European countries, in order to promote these contacts.

In November 1981, a high powered delegation of the Federation of German Industry (BDI) visited India and on return presented their comprehensive report to German industry. To begin with, the report was critical of a few major aspects of the Indian situation: decision making is slow and bureaucratic, double taxation is not fully avoided and the labour laws, still based on the British pattern, do not promote entirely peaceful industrial relations. But then the report went on to stress numerous positive features of the Indian business situation. It pointed out that democracy had come to be stable, that the industrial and financial mechanism of the country was sound, that the interest rates were lower than in many parts of the world including the developed countries, that price inflation was less in India than in many other areas of the world, that a large stock of scientific and technical talent existed in the country and that the country has acquired fairly large absorptive capacity for foreign investment and tech-

nology. The report also noted the liberalisations in governmental policies both in imports and industrial production. The report concluded that the ground level economic and business situation in India was far better than the image of that country warranted in West Germany.

Hannover Fair

Contacts of German businessmen with their Indian counterparts have been increasing and enquiries about India have been multiplying. Indian participation in the major trade fairs of the FRG — the primary device for sales promotion and business information — has got enlarged and for 1984 India has been declared to be the partner country in the great Hannover Fair — the largest industrial fair in the world. About 15,000 square metres of space is likely to be devoted to Indian stalls in this fair and about 200 Indian firms are expected to participate with one of the best displays of India's industrial and business capability. The recent visit of an important delegation of AIEI to the 1982 Hannover Fair has enabled the country to establish crucial contacts with the German industries and the relevant Ministries of the Federal Republic.

German industry has a long tradition of technical excellence, high integrity and discipline and efficiency. These qualities ought to suit the Indian business community in taking full advantage of German enterprise both in trade and manufacture. But it requires an equal commitment to discipline, efficiency and integrity on the part of our people.

Prolonged recession

The economic context in Europe and the United States today is that trial field. Recessions have been on a long term impasse in the industry of a prolonged recession which has already run a course of more than two years. There is also suggestion of curing with somewhat increased frequency as well as increased duration. Normally in the past, after a recession or a depression had run its normal course, some of the dynamic industries would have started moving upwards and would have pulled the whole economy out of the recession. But it so happens today in Europe and the United States that the great industries of the 20th century, which were virtually carrying the economies of the developed world on their shoulders, seem to have run their full course. The house building in-

dustry, the road construction industry, the automobile industry, the railway construction and electrification industry as well as the airline are all in a state of saturation and appear to have excess capacity. There is hardly any revival in any of these lines and to that extent it is becoming more and more difficult for the economies of Europe and the United States to pull themselves out of the recession. Under these circumstances, it is not easy for European and American businessmen to sell very much more in their own traditional areas — and hence an attempt to diversify trade regionally and to sell in the thickly populated economies of the developing countries such as those in South Asia, Asia and China. Therefore, in the present phase, European and amongst them German businessmen would be quite keen to do as much business as possible in India and this is in fact an opportunity for Indian enterprises.

Key area

There is another factor which is making India more attractive to the West as a key area of manufacturing or export. Although the Indian cost structure has been losing a great deal of its attractiveness owing to the rise in the price of one thing or another, it still remains true that quite a few items, and certainly skilled and technical labour, can be bought much more cheaply here than anywhere in the developed world.

Consider the hiring of a highly skilled engineer — which should be possible in India, say, at Rs 4,000 per month, or about DM 1,000. It is impossible to get an engineer of similar skills in the FRG or anywhere in Europe at this price or even at a price four times greater than this India thus remains a highly attractive country and if a project were to be run in the FRG or by FRG industry in a third country like Kuwait or Saudi Arabia, it is certainly true that a least-cost project, an optimised project, will be well advised to purchase its engineering designing etc skills in India and combine it with the technical efficiency and other features of the FRG industry. It is this which makes the commissioning of Indian skills or getting the product made in India for export to FRG, Europe or to third countries a highly attractive proposition. This line of development has to be explored aggressively as the possibilities are large and highly attractive.

West Germany's banking relations with India

By Dr HANS FRIDERICH

Chairman, Dresdner Bank

ON August 15, 1947 India celebrated a great day, the day of independence and the day on which she walked out again to join the family of free nations. It was the time when also Germany slowly struggled back to her feet from a war which had destroyed a large part of Europe, North Africa and Asia and left millions of innocent dead on the battle fields and devastated towns.

It was not a strong flower in the beginning, the Indo-German relations, as both countries had to first establish their direct economic ties from the very first step but it was on a fertile ground as traditional friendships have existed and both countries had to develop their reciprocal export markets in order to survive.

With economic activity in both countries gaining momentum and foreign trade expanding to unprecedented heights, the relations grew to the magnitude and importance of today where India has become the fifth largest trading partner of the Federal Republic of Germany in Asia with strong growth rates over the last years.

Also the banking relations between both countries reflect the strong growth and development of economic activity which I am happy to mention has correlated with the deepening of human friendships and understanding.

Correspondent arrangements

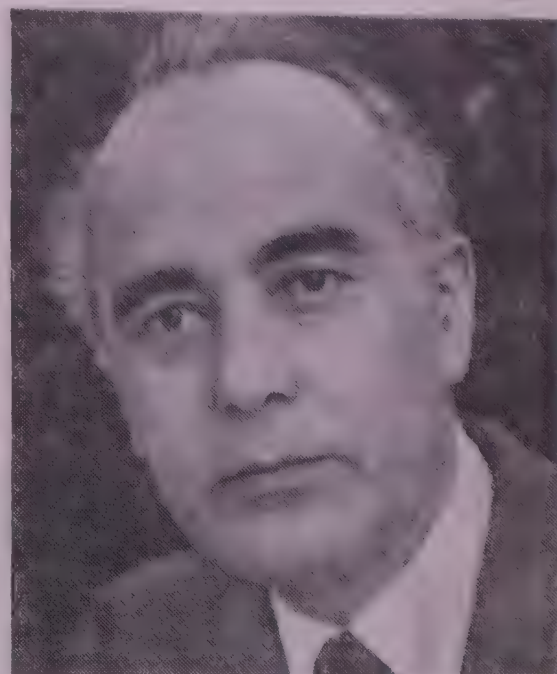
While before India's independence banking relations between both countries were restricted to correspondent arrangements with the branches and establishments of British banks, soon thereafter the first set of control documents went its way from the newly established banks in India to their German counterparts. It is, indeed, interesting to look into the old files of my bank and to find

that in most cases the new Indian banks took the initiative in proposing to set up direct banking relations.

With first the deutschmark and later also the Indian rupee becoming more and more the currencies of invoicing in the bilateral trade instead of traditional billing in pound sterling and US-dollars, accounts were opened and first arrangements were established for financing the trade flows.

Long since then the banking relations between both countries have matured and grown to the multi-fibre fabric of today, such as:

1. A large number of correspondent and account relations; for instance Dresdner Bank today maintains active correspondent arrangements with more than 60 Indian banks including accounts with a large number of them.
2. Frequent travels and meetings between Indian and German bankers on various levels; training of staff members from Indian banks in Germany and vice versa largely contributed to a better understanding and the establishment of friendships far over and above the banking relations.
3. Cooperation with the ICICI and other Indian development banks. For instance, my bank has maintained a participation in the ICICI, though small, since its inception. The German Development Bank, KfW, has assisted with credit lines under the Indo-German agreements on capital aid.
4. Direct representation of banks in both countries.
5. The active participation of German banks in long-term export financing; Dresdner Bank for instance has been the German lead bank for financing the deli-



Dr Hans Friderichs

veries of Airbus planes to Indian Airlines.

Sub-contracting

With the industrial structure of the country growing further in depth and size, Indian industrialists successfully entered the international arena in participating in an increasing number of large projects in foreign countries. While in the beginning this took shape on a sub-contracting basis to lead contractors from industrialised countries, Indian entrepreneurs became more and more successful in directly winning large contracts. These activities gained further possibilities for German and Indian banks in establishing bid and performance bonds on a joint basis and to cooperate in export and bridging finance. A further dimension was added when Indian companies established themselves in Germany and third countries and German companies established themselves in India.

While direct lending by German commercial banks to companies in India was limited to a few instances, the recent relaxation of the rules on borrowings abroad by Indian companies has opened new avenues also for German banks to assist with their wide range of financial services.

In this connection it is worthwhile mentioning that for instance Dresdner Bank group has been actively engaged in such direct lendings from the beginning, partly in cooperation with International Finance

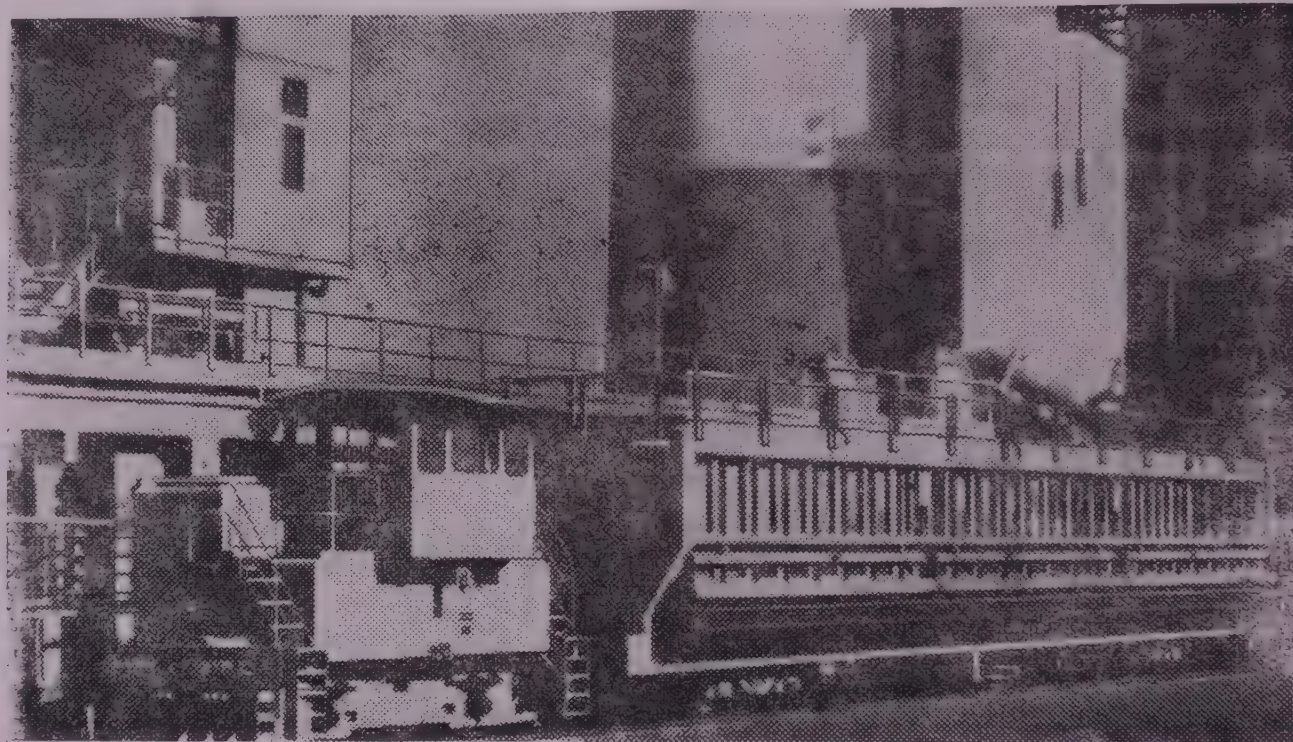
Corporation of Washington and/or Indian banks.

It is the normal course of happy marriages that there is still room for improvements though. We, for instance, sometimes meet Indian friends who feel that the medium- and long-term German export financing is done on a concessional basis which in fact is not the case. It also appears to us that quite often valuable time is lost on the ground that the neces-

sary approvals of the appropriate authorities in India are not forthcoming in time. And finally it should be mentioned that German banks, as other private international banking institutions, have to achieve certain minimum margins on lendings in order to build up adequate reserves and to serve their private shareholders thus ensuring that an adequate equity basis is maintained for

their business which in the case of banks also means risks.

But all these remarks are minor points if compared with the way Indo-German banking relations have grown, and I have every reason to believe that the cooperation also in the financial field between both our countries will expand further and will contribute its share to the well-being of the people in both our countries.



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Andreas von Buelow

Cooperation in science and technology

By ANDREAS VON BUELOW

Federal Minister of Research and Technology

They implement jointly with the German Research Centres the Indo-German cooperation as agreed to by both governments.

Solar energy

As mentioned before joint R & D activities in non-nuclear energy research represent one priority in our cooperation. In this field particular attention is being paid to joint projects in solar energy. German and Indian scientists and engineers adapt jointly a thermal solar pump to Indian conditions.

Another example for our joint activities is in the field of conventional power plant technology in which for many years a vivid exchange of experience between Germany and India took place. An Indo-German power plant symposium on

operating problems of conventional power plants and on specific aspects relating to the use of Indian coal was held in January 1982.

Aerospace research is another priority of Indo-German cooperation. It covers various activities in the fields of upper atmosphere and near-earth space, materials and construction modes, satellite technology and operation as well as remote sensing.

The fourth, not less important area of our cooperation is the field of life sciences.

The outcome of our cooperation in all these areas has been very encouraging. Just the experience gained in the cooperation with India has encouraged us to establish to an increasing extent a cooperation with countries of the Third World according to this model.

THE Republic of India and the Federal Republic of Germany can look forward to lasting ties in the field of science and technology. Strictly speaking, scientific and technological cooperation between the two countries dates back to 1971 when both governments agreed to cooperate, in addition to the existing scientific contacts within cultural cooperation and technical assistance programmes, in the field of space research and the peaceful uses of atomic energy.

The extension of cooperation into other fields of interest of both partners led to the conclusion of another governmental agreement on cooperation in scientific research and technological development in 1974.

The cooperation under these agreements can be considered to be an additional tool to the existing cooperation between our countries in the fields of commercial transfer of technology and of economic and infrastructural development. It aims at the solution of problems of common interest by execution of research and development tasks on an equal basis.

With the importance attached world wide to the ensuring of future energy supply it is understandable that our countries regard the solution of energy problems as a field of common interest to undertake joint efforts in research and technology.

The global dimension of many other problems requires to take advantage of our technological potential jointly. We are, therefore, proud that the most prominent and outstanding institutes of India are involved in the Indo-German cooperation.



Indian engineers visiting the Kraftwerk Union complex at Karlstein in FRG. Employees of the Maharashtra State Electricity Board, these engineers are being trained for their future assignments at the Uran turbine power station.

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Cooperation in telecommunications

THERE have been pleasing developments in the last few years in the cooperation between India and the Federal Republic of Germany in the field of telecommunications. Until autumn 1980, Indo-German cooperation in telecommunications was limited to the despatch of lecturers for relatively short periods of time to seminars organised within the framework of the International Telecommunication Union (ITU). After my visit to India in December 1980 with a delegation from the Deutsche Bundespost it was obviously realised there that a non-English speaking country could also be a suitable consultant for the further development of the Indian telecommunications network. The object of my visit to India was to establish and strengthen contact in all areas of telecommunications to pave the way for future cooperation. During the talks themselves, both sides recognised that a good start had been made. This cooperation was to take the form not so much of financial assistance but of an exchange of experts from the most diverse fields and, as far as possible, on a reciprocal basis.

Since my return from India there has been a lively exchange of information and views between experts from both postal administrations in the Federal Republic and also in India. During my visit and specifically in the talks at the Indian Ministry of Communications it was agreed that a delegation from the Fernmeldetechnisches Zentralamt (Telecommunication Engineering Centre) of the Deutsche Bundespost should visit the Telecommunication Research Center (TRC) in New Delhi.

The delegation from the FTZ started out for India three months later. Immediately after the welcoming reception the Indian hosts gave our delegation a comprehensive questionnaire on technical subjects, which clearly showed that the Indians were interested in detailed technical discussions. It also became obvious that our Indian counterparts were expecting technical lectures and each member of the delegation to have parallel discussions with a group of Indian experts.

Training Centre

The contact established by the various specialists on that occasion



By DIETRICH ELIAS

Secretary of State

has since been maintained by regular correspondence. But activities are by no means limited to this. The Indian telecommunications administration has a training centre in Ghaziabad near New Delhi where all the courses are prepared and organised and where staff from neighbouring administrations too receive basic and further training. National and international seminars to which guest lecturers from all over the world—including lecturers from the Deutsche Bundespost—are invited are also held there. Various experts from the Deutsche Bundespost have been to India; on several occasions in the recent past for instance Herr Theodor Irmer, head of department at the FTZ, has done so, both as the leader of ITU seminars and also under the scheme of mutual consultation in the field of digital switching and transmission techniques. From December 1981 to March 1982 the engineer Robert E. Nithak (senior technical executive officer at the FTZ) worked with the Indian telecommunications administration in the capacity of advisor within the framework of German bilateral technical cooperation.

Telex planning

The main purpose of Robert E. Nithak's visit was to make proposals on telex planning and data communication. Other areas of interest

were the modernisation of the telegram service in India and information on the new teletex service. The proposals were formulated by the Germans as follows:

The telex network in India, which has a current total of 24,000 stations and which operates on an electro-mechanical basis, is to be expanded at the upper network level using Siemens EDC systems. At the lower network level time multiplex concentrators and intelligent concentrators with limited switching functions are used. Proposals for gradual conversion to electronic technology were also made. Here, a larger version of the small electronic exchange produced in India can be valuably used. Charge metering, the numbering plan and the tariff system were also discussed.

In the field of data communications there are only point-to-point circuits in India at the moment. Low-speed data transmission in the telephone network has been possible for some months. A switched data network for India is considered desirable, however. The first step towards this would be the integration of asynchronous data communication in the telex network (EDX), which could be achieved at minimum expense and effort.

The introduction of a teletex service is not yet a subject of discussion in India. As a result, only broad information was given about the service in general, CCITT standards and the implementation of the service.

Modernisation of the telegram service, which is operated at present only over point-to-point circuits, has obviously become a matter of urgency. A pilot project with a small message switching centre produced in India is currently being carried out. The consultations provided by the data and telex expert will likewise be continued. The most important visit to the Federal Republic was that of Mr Ghose, secretary to the Indian Ministry of Communications, last May. He gathered information at the Deutsche Bundespost in particular on the progress made in setting up modern digital switching systems.

Indo-German cooperation in the field of telecommunications is clearly greatly welcomed by the German telecommunications industry. Thus

the industry is also particularly interested in the project concerned with the introduction of digital telecommunication systems in India. A corresponding international invitation to tender last March also resulted in offers from German firms.

Agreements

Activities in the field of telecommunications have also been agreed for the future between the Indian and German postal administrations:

1. In addition to the four-month periods of consultation by the data and telex expert from the

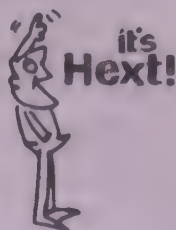
FTZ, three or four Indian experts on telegrams are to visit the Federal Republic for approximately three weeks.

2. Several Indian experts will come to the Deutsche Bundespost to study in preparation for the introduction of the digital switching and transmission systems planned.

3. The Indian telecommunications administration has already requested further know-how in other areas of telecommunications through diplomatic channels.

India is 13 times the size of the Federal Republic. Thus there is still much to do in the field of telecommunications to improve the infrastructure. Increasing cooperation between the two countries has also led in recent years to a steady improvement in the communication paths between them. Outgoing telephone traffic, for instance, has doubled since 1978. The Federal Republic occupies fourth place in the list of "called" countries after Great Britain, the USA and the United Arab Emirates. We hope that this pleasing development will continue in the years to come.

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Growth of development cooperation

By **ALWIN BRUECK**

Parliamentary Secretary, Ministry of Economic Cooperation



Mr Alwin Brueck

ON June 14 and 15 this year, the 25th annual meeting of the Aid India Consortium took place in Paris at the invitation of the World Bank. The meeting took stock of India's economic development and the picture which emerged was, on the whole, a positive one. The Federal Republic of Germany among others has made its contribution here: In terms of the volume of German development aid, India is our most important partner in the field of bilateral development cooperation. The very friendly traditional relations between India and the Federal Republic of Germany such as exist in the field of cultural exchanges, scientific research, economic cooperation and trade, are continuing and multiplying in this area too.

Under official bilateral development cooperation, India has received for development projects almost DM 8 billion (1 DM is currently equivalent to 4 rupees.) from the Federal Ministry for Economic Cooperation. The largest single development projects ever implemented under German financial and technical cooperation programmes anywhere in the world are in India: the Rourkela steel plant in Orissa and the Indian Institute of Technology at Madras in Tamil Nadu. The Federal Republic of Germany is one of India's main bilateral donors. In 1980-81 the Federal Republic of Germany made the highest commitments after the Soviet Union and the United States of America. Under financial cooperation loan conditions have improved steadily; currently loans are

made available for a maturity period of 50 years, with 10 grace years, at an interest rate of 0.75 per cent. As a general principle, German development aid is not tied to supplies and services from the Federal Republic of Germany.

In the early years, financial cooperation between India and the Federal Republic of Germany concentrated on providing foreign exchange for establishing basic and heavy industries in India. In addition to the Rourkela plant mentioned above, which must surely be the best known of all German-Indian projects, another three iron and steel works have been promoted in Karnataka, Orissa and Bihar. As time went on, other projects were implemented in the processing industries.

Electricity production

For a number of years now, the Federal Ministry for Economic Cooperation has been giving increasing support to electricity production, since it was found to be a major constraint on India's development. Nearly DM 600 million has been made available for the purpose of setting up a lignite plant of the Neyveli Lignite Corporation in Tamil Nadu. Substantial funds were made available to expand production of high-speed turbines and large pipes in various factories of the state-owned Bharat Heavy Electricals Ltd. DM 475 million has been made available to instal 500 mw coal-fired turbines in powerstations at Trombay, Singrauli, Korba and Ramagundam; it is planned to make further funds available for this programme. Agricultural development also plays an important role: loans are made available on concessional terms for irrigation, water supply and agricultural credit schemes.

Most of the funds not tied to projects benefit industry. Commodity aid (1982: DM 40 million) facilitates the speedy procurement abroad of industrial plant for replacement or

additional investment. Funds and foreign exchange required for investment projects are channelled through the industrial development banks, Industrial Finance Corporation of India (IFCI) and Industrial Credit and Investment Corporation of India (ICICI) mainly to medium-sized concerns in the private sector.

Export credits

In many cases financial cooperation funds are supplemented by export credits backed by government guarantees. The various forms of official aid are often associated with a substantial transfer of technology from the Federal Republic of Germany by the private suppliers and consultants involved. This frequently paves the way for private investment and cooperation agreements between Indian and German firms. The transfer of modern technologies in the framework of scientific research and industrial production is also assisted by technological cooperation. Support is provided above all to Indian institutes of research, training and consultancy, Indian personnel is trained in the Federal Republic of Germany and German experts are sent to India. By means of a "Short-Term Expert Pool" the Indian Government may, at short notice, request German expertise to solve specific problems. Examples of important projects which have been or are being promoted are: the Indian Institute of Technology, Madras; a marine geology research ship for the Department of Ocean Development; equipping of toolrooms in Ludhiana and Lucknow and the improvement of electronic goods manufactured by small and medium-sized industry. A total of some DM 1 billion has been made available for technical cooperation with India in the form of non-repayable grants.

Bilateral assistance

Ninety per cent of official German bilateral assistance to India goes on projects of financial or technical cooperation. Negotiations are held

each year between the Indian and German governments to discuss the use of the funds. For example, this year alone, at the government negotiations in Bonn, DM 394 million were earmarked for development projects. In addition, the Federal Ministry for Economic Cooperation supports a large number of German non-governmental organisations such as church organisations and political foundations doing grass-roots development work in India, and promotes training measures and scholarship programmes, food security measures and the assignment of volunteers from the German Volunteer Service.

Future development cooperation between India and the Federal Republic of Germany will continue to be based on the same well tried principles as in the past. In keeping with the Indian development plans

and the development policy guidelines of the German Federal Government, the focus of financial cooperation will continue to be on the energy sector, especially electricity production from domestic coal, and on agricultural development; in addition, it is planned to promote industrial production and the material infrastructure. Under technical cooperation special emphasis is to be placed on the transfer of modern technologies.

True partnership

Science and research in India and the Indian economy have, in some sectors, reached such a high level of development that the classic donor-recipient relationship is being replaced by a true partnership based on reciprocity. In 1981 more industrial cooperation agreements were signed by Indian firms with the Fede-

ral Republic of Germany than with any other country. Here there is still enormous potential for the increased transfer of technology and capital. The Government of the Federal Republic of Germany welcomes this type of cooperation too, and supports it wherever possible.

However, support from abroad can at best only supplement or accelerate the efforts of the people themselves. That is why India's current 6th five-year development plan envisages foreign financing for only 6 per cent of official development investments, while 94 per cent is to come from Indian sources. In the last resort, it will be the hard work and savings of the Indian people which, as in the past, will create the right conditions for India's development and may forward into the future. It can count on our continued friendship and support.

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Aliens in West Germany

By GERHART BAUM

Federal Minister of the Interior

THERE are 4.6 million aliens living in the Federal Republic of Germany i.e., 7.5 per cent of the overall population of about 60 million. The majority of them entered the country as migrant workers in the sixties and early seventies. In particular, they were recruited in Turkey, Yugoslavia, Italy, Greece, Spain, Portugal, Morocco and Tunisia because the German economy had a high demand for labour at that time. Many jobs, particularly in the branches of building, vehicle production, electrical engineering, trade and mechanical engineering, could not be filled with Germans. Alien workers have proved to be particularly indispensable in the fields of mining, the hotel and restaurant business and hospital care.

Currently, 1.9 million aliens are gainfully employed and about 232,000 are jobless; this corresponds to an unemployment rate of over 11 per cent of all aliens. The Turks, with about 1.5 million people, represent the largest group of aliens.

Of the 30,000 Indian nationals living in the Federal Republic of Germany, about 50 per cent are engaged in gainful activity. According to a survey made in 1980, 1,062 worked as skilled workers, 472 as engineers and 205 as doctors.

Integration of alien workers

When the agreements on the recruitment of workers were concluded, one proceeded from the assumption that the foreign workers would enter the country only for a limited period and soon return to their families with the money they had saved and the knowledge they had acquired here in order to have a better basis of existence in their home countries.

This "rotation model", however, has not prevailed in practice. The German employers were not prepared to let semi-skilled workers, who did a good job, go after a short time. The training of new foreign workers would have cost much the employers. The foreign workers, too, showed no interest in returning to their home countries soon. They would have to give up

their familiar and well-paid work without having the prospect of a similar livelihood in their home countries in view of the global economic situation. Due to the extension of stay of the worker who had initially come alone, the necessity arose to consolidate the legal status of residence (long-term permit of residence, comprehensive protection against removal) and to allow the subsequent immigration of dependents (spouses and minor children).

It has meanwhile become obvious that a very large part of the aliens and their families will stay here permanently. This particularly applies to the families of the 630,000 children already born here. The Federal Republic of Germany makes every effort to bring about the integration of these people. The essential point is to provide the equality of chances in the fields of housing, education, training and vocational careers. The aliens are expected not to shut themselves off in ghettos; to learn the German language and to adapt themselves to the prevailing living conditions.

For the time being, particular difficulties are due to increasing unemployment and the resulting competition between Germans and aliens as well as shortages in housing especially in the conurbations of the cities where the percentage of foreign inhabitants sometimes reaches or even exceeds the limit of 20.

Limitation of continued in-migration

With the waning boom in the wake of the "oil shock", any further recruitment of foreign labour was banned in 1973. For nationals of states which are not members of the EEC, this means that there is no access to the German labour market. The ban on recruitment has been maintained up to the present; in view of nearly 2 million unemployed German nationals, a relaxation cannot also be expected for the future. Yet, the number of aliens has considerably increased through subsequent immigration of dependents and the high birth rate. The number of aliens has risen to 4.6 million aliens and the capacity of Federal Republic of Germany to



Mr Gerhart Baum

absorb them is exhausted. The necessary integration of the aliens living here can only be successful if further in-migration of foreigners from non-EEC member states is restricted by means of a consistent and effective policy. There is no other way to maintain the indispensable consent of the German population to the integration and to secure social peace.

In this context, mention should be made of the rigid fight against the stay and work of so-called "illegal persons". Early this year, provisions regarding the suppression of illegal employment have been tightened.

Moreover, the Federal Government has taken decisions regarding the socially responsible control of the in-migration of dependents of foreign workers. Accordingly, children and juveniles are to immigrate at a time when there is still a chance of integration. These chances only exist if the young person concerned has a good command of the German language and a vocational qualification. This is why juveniles over 16 are in principle excluded from the subsequent immigration of dependents.

Furthermore, the Federal Government promoted the voluntary return of foreign workers to their home countries. In this context it has recently decided that nationals of certain states will receive refunds of their contributions to the old age insurance after a short waiting period.

The Federal Government is particularly concerned about the misuse

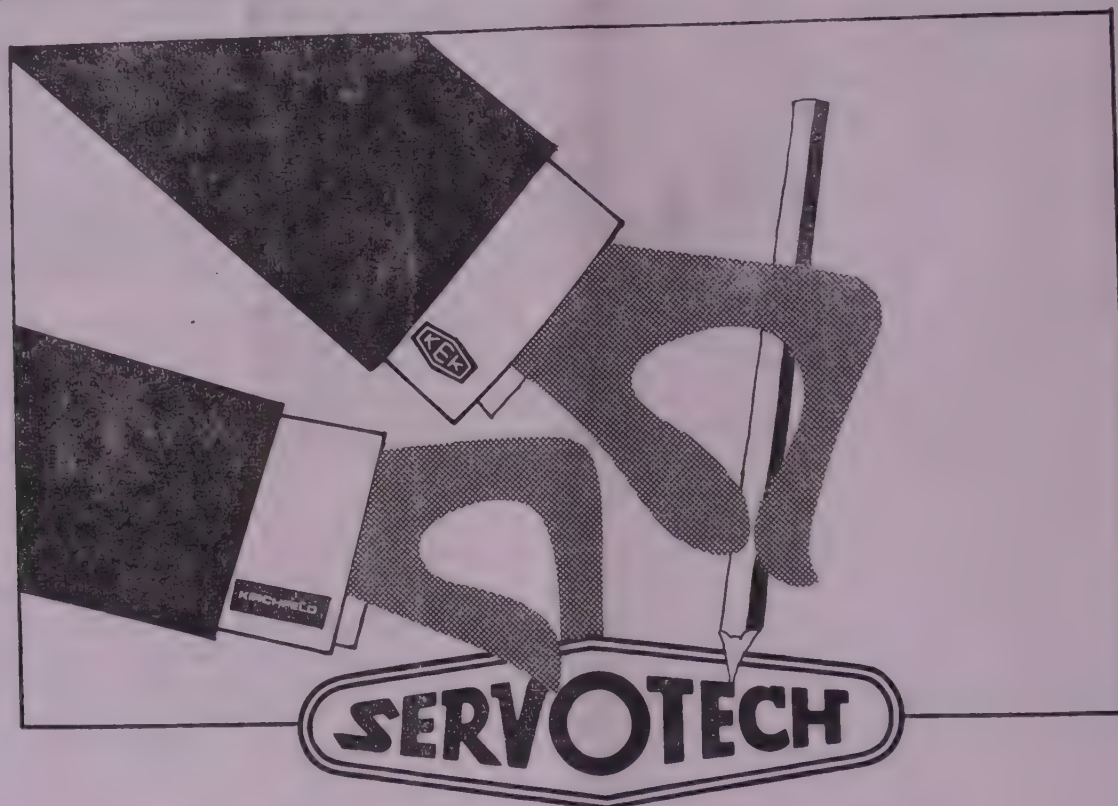
of the right of asylum as embodied in the constitution. In the past few years up to the end of 1980, the number of persons requesting asylum steadily increased. It is still at a high level today. Misuse of the right of asylum means that aliens willing to work in the Federal Republic pretend to be politically persecuted in order to obtain the permit of residence in the Federal territory.

The Federal Government has

taken measures against such misuse of the right of asylum. Since mid-1980, asylum seekers are no longer granted a work permit when they enter the Federal territory. They are only entitled to social welfare benefits. To an increasing extent, these benefits are provided in kind (accommodation, board). The Landers are responsible for accommodating the persons requesting asylum and more and more tend to lodge

them in community quarters. The misuse of the right of asylum has also led to visa requirements for entry into the Federal Republic of Germany being considerably expanded.

These measures have been successful. They are supplemented by a new Asylum Act which will soon be enforced and provide for a considerable acceleration of the procedure.



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Fundamentals of Bonn's policy towards foreigners

AS of September 30 1981, there were 28,630 Indians living in the Federal Republic of Germany. This total was made up of 20,761 men, 4,940 women and 2,929 children under 16 years of age. A total of 12,106 of them (comprising 10,016 men and 2,090 women) were covered by the compulsory social insurance schemes.

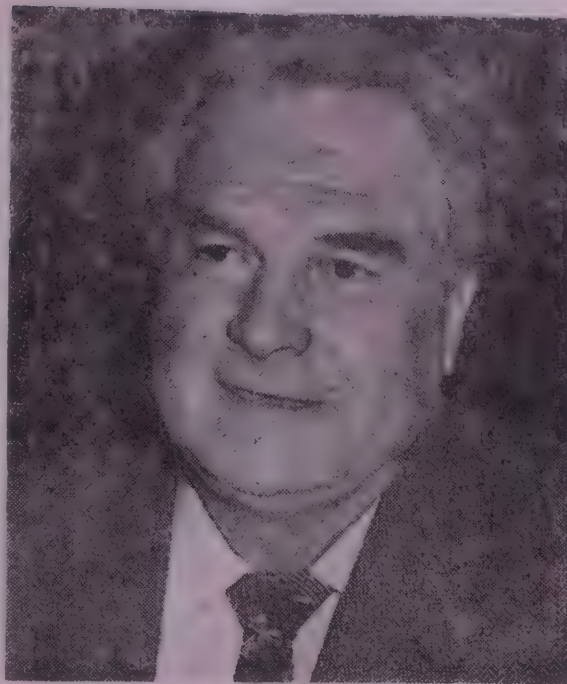
The statistics do not indicate the number of unemployed persons among Indian nationals because the figure is so small in absolute terms as to be irrelevant for recording purposes.

Generally speaking, relations between Germans and the Indians living here may be described as good. One reason for this probably lies in the high esteem in which German philosophers and novelists have long since held Indian culture and notably Indian philosophy. From the 19th century, I need only cite the philosopher Arthur Schopenhauer and from the first half of our century the writer Hermann Hesse.

But I do not wish to pass over in silence one problem which has been worrying us in recent years. I refer to the large influx of asylum-seekers who come to Germany from India for reasons not connected with asylum, namely to take up work here. We found ourselves having to introduce a whole series of measures designed to prevent abuse of the right of asylum. Our Federal Government is now forced to embark upon a more restrictive course of action in its policy towards foreigners in general, because this represents the only way of resolving the manifold problems of employment and integration. These considerations are reflected now in the fundamental approach in official policy towards foreigners.

The aim of the Federal Government's policy towards foreign nationals consists in:

effectively limiting a further influx of foreign nationals into the Federal Republic of Germany; strengthening the willingness of those already here to return to their home country; and improving the economic and social integration of foreigners resident for many years in the Federal Republic of Germany



By HEINZ WESTPHAL

Federal Minister of Labour

and specifying more exactly the legal provisions governing their residence here.

Freeze on recruitment

Only a consistent and effective policy for limiting immigration from such states as are not members of the European Community can gain the indispensable approval of the German population for the integration of foreigners. This is essential for preserving of social peace.

For this reason, the freeze on the recruitment of foreigners will continue without any restrictions. This also precludes permission to recruit foreign seasonal labour. Changes of name and date of birth with the aim of obtaining entry are not binding for the W. German authorities.

The waiting periods for the admission of family dependents of foreign employees or asylum-seekers to the labour market will remain in force.

The subsequent immigration of foreigners' family dependents must be steered pursuant to the principles of social responsibility. To this end, the Federal Government has adopted certain resolutions in respect of immediate action. The Lander (states)

have, in the main, implemented these resolutions.

Asylum

Whilst the basic right of asylum must be retained, the procedure for granting asylum must be capable of producing quick decisions on those cases where the application clearly stemmed from reasons not connected with the asylum. That lies particularly in the interest of political persecutees. The Federal Government expects the Bundestag and the Bundesrat (Federal Council) to conclude their deliberations on the Asylum Procedure Act without further delay.

The Law on Combating Illegal Employment of December 15, 1981 has created the preconditions for forestalling unlawful entry and the unlawful employment of foreign nationals. The Federal Government calls upon the Lander, who are responsible for implementing the Law on Combating Illegal Employment, to make full use of the possibilities provided by the law.

In the negotiations between the European Community and Turkey on a final settlement of freedom of movement within the framework of Turkey's existing association with the EEC, the Federal Government intends to reach an agreement which will rule out the arrival of further workers from Turkey.

Integration policy

The Federal Government subscribes to the integration policy for foreigners permanently resident in this country. The principal task is to integrate the second and third generation of foreigners. Only close co-operation between the various sections of society will permit better relations in everyday life between Germans and foreigners. With this in mind, the Federal Government opposes all activities which encourage xenophobia.

Considerable importance also attaches to the assistance furnished for integrating young foreigners into working life. Hence, the measures taken by the Federal Government to improve employment opportunities for young persons also aim at bring-

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Parliamentary relations between Bonn and Delhi

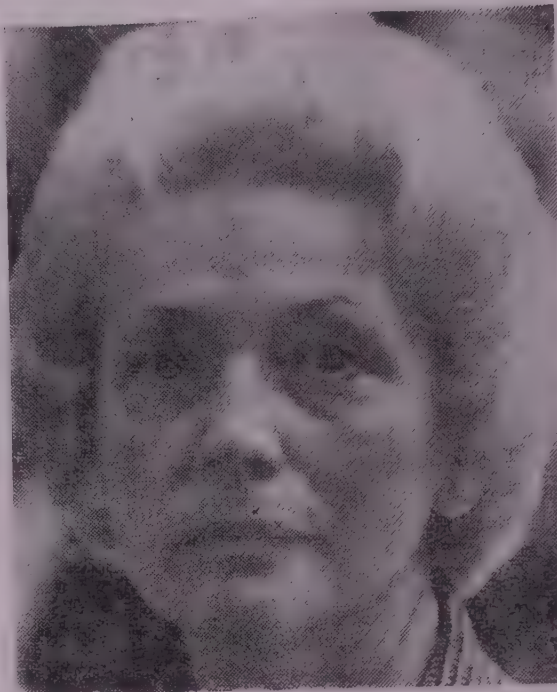
THE President of German Bundestag welcomed Mr Balram Jakhar, Speaker of the Indian Lok Sabha, and the parliamentary delegation from India in the following words:

"I wish to express appreciation of your visit to the Federal Republic of Germany by underlining the importance of two aspects in particular; on the one hand this visit demonstrates the interest of the Indian Parliament and the German Bundestag in the relations between our two countries, and on the other hand it serves the exchange of ideas and information on topical questions relating to worldwide policies. We, the freely elected representatives of our peoples wish to help strengthen German-Indian relations. It is my sincere hope that you feel you are received and treated not only as guests but also as friends".

In fact, the Parliaments of both countries have contributed considerably towards the development of relations between the Federal Republic of Germany and the Republic of India.

Although the German Bundestag recognises that the executive branch has the primary responsibility for foreign policy matters, the Bundestag has the exclusive power to legislate in foreign policy matters under the Basic Law of the Federal Republic of Germany. Thus, now in view of the sovereignty of nations, parliament rightly gives expression to its legitimate interest in developing, cultivating, and extending the relations between two countries and their peoples, when it — or its members — establishes and maintains political or personal contacts with other parliaments in the world.

The relations between the German Bundestag and the two Houses of the Indian Parliament go as far back as the diplomatic relations between our two countries. Now — 30 years later — politicians are not the only ones who recall that, following the second world war, free and independent India was the first country — after the allied powers, the USA, Great Britain and France — to give diplomatic recognition to the Federal Republic of Germany, thus paving



By ANNEMARIE RENGER

Deputy Speaker, Bundestag

the way for the young German state to attain equal rights among nations.

By visiting the Federal Republic of Germany — only one year after the state visit paid by Federal President Carstens to India and the Indian Parliament in March 1981 — the Indian parliamentary delegation continues the long-standing, good tradition in which German and Indian parliamentarians have cooperated in international organisations and exchanged experiences and ideas at bilateral meetings for the benefit of the legislation in their countries.

Promoting contacts

The Interparliamentary Union of which both our Parliaments are members, brings parliamentarians together with a view to "promoting personal contacts between members of all Parliaments constituted into National Groups, and to uniting them in common action to secure and maintain the full participation of their respective states in the firm establishment and development of representative institutions and in the advancement of the work of international peace and cooperation, particularly by supporting the objectives of the United Nations". The work of the 26 groups of parliamentarians in the 9th German Bundestag including the German-Indian group of parliamen-

tarians comprising 21 members from all parliamentary parties is committed to this objective. Lectures and discussions are also organised in co-operation with the Embassy of the Republic of India; meetings with Indian politicians, scientists and economists; trips undertaken as members of official delegations and independent fact-finding trips, as planned for 1983, help to achieve the aims of the Interparliamentary Union.

Bilateral relations between parliaments and between members of parliament and governments are of greater and more topical importance for the concrete legislative work. Bundestag committee delegations, unable to discuss the special subjects arising in an increasingly interdependent world without taking into account the experiences of other parliaments and the international interlocking of interests, look to other countries for information.

The Foreign Affairs Committee and its subcommittees on humanitarian aid and foreign policy in the cultural sphere, the Committee on Economic Cooperation, and Bundestag members from all parliamentary parties have visited India in the last few years to gain an insight into and to form an opinion of the situation by conducting talks with Indian parliamentarians and government representatives, with German entrepreneurs and experts working on development aid projects, and by obtaining information on the value and effectiveness of German relief action. The information thus obtained has served as a basis for their work in Parliament.

Political and economic cooperation between the Federal Republic of Germany and India has been of special importance for both countries since the early fifties; since then it has been constantly intensified.

Understanding

The Federal Republic has recognised the fact that India has continuously shown understanding for its interests — in connection with the recognition of the German Democratic Republic, the Indian Government stated that the German nation's right to peaceful reunification would not be prejudiced by this move; far-

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German economy : A look into the future

By GERMAN HAUPTMANN

Deputy Consul-General, Bombay

THE Federal Republic of Germany has succeeded so far in maintaining its position among the top group of industrialised countries, inspite of decline in the world economy and its high degree of dependence on foreign trade. This is also evident from the consistently strong position of the German Mark.

However, the German economy has faced difficulties in the recent years, which have resulted in a considerable slow-down of growth and prosperity. After several hopeful starts which did not prove promising the economy has improved in some respects since the spring of 1982; the interest rate has dropped; prices have stabilised; collective bargaining has taken into account the overall economic situation; and there is no longer a balance of payments deficit.

These optimistic signs of an upswing, however, were accompanied by certain negative developments.

- in July 1982 there were more unemployed persons in West Germany than there were in the corresponding month of any previous year since 1949.
- there were few job vacancies.
- industrial production in the months of May and June 1982 fell by 2.5 per cent compared to the months of March and April.
- during the same period the demand for goods decreased by 3.5 per cent compared to the two preceding months which were also not blessed with plenty.
- wholesale trade showed a decline in turnover of 6 per cent as compared with the previous year.
- the usually buoyant engineering industry showed a drop in turnover of 3 per cent in June 1982.

What will the outlook for the Federal Republic of Germany be a decade hence, say in 1995?

The following is an attempt at a prognosis.

The recent past has confirmed the theory that with the recession

after the first oil crisis in 1973, a phase characterised by **supply** as the factor limiting economic growth has come to an end. Today, it is generally believed that **demand** constitutes the decisive factor for economic development, at least for the period up to 1995. Therefore, in the following analysis emphasis is given to a demand oriented plan.

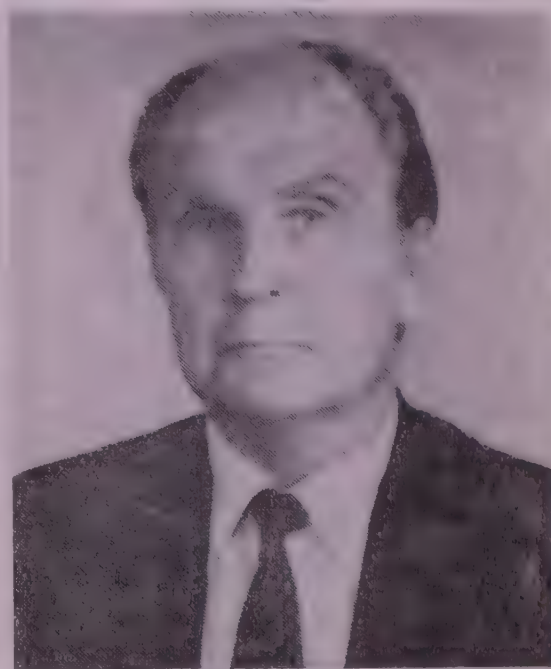
Domestic demand which increased from 1966 onwards by an average of about 3.5 per cent will decline. For the period up to 1985, an annual growth rate of 3 per cent is expected. From 1985 to 1995 this growth rate will be about 2.5 per cent.

Private consumption will make up the bulk of domestic demand also in the future. However, here also there will be a drop in demand mainly due to a decrease in population.

Real per capita consumption, on the other hand, is expected to increase at a higher rate corresponding to the increase in real per capita disposable income till 1995.

The population of the Federal Republic of Germany, which increased by about 3 per cent during the period 1966 to the end of the seventies, will decrease by about 4 per cent till 1995 according to statistical calculations. This means, in absolute figures, a drop in population from 61.4 million (1977) to 57.4 million in 1995. In view of this development structural changes unfavourable to the segment of the population under-15 will occur.

Real government consumption, which made up the bulk of domestic demand between 1966 and the beginning of the eighties, will slow down and fall below the rate of growth in domestic demand. This development is caused on the one hand by a decrease in public demand, due to a fall in the population and resulting changes in the age-wise distribution, on the other by a nominal restriction of state expenditure. The latter becomes necessary as the population cannot be further burdened



Mr German Hauptmann

with taxes and social insurance payments, the share of which in total household income rose from 24 per cent in 1960 to 34 per cent in 1977. Only a marginal increase is expected in the future, however, and by 1995 a share of 40 per cent is envisaged.

Investment in fixed assets is expected to rise by a larger extent till 1995 than during the period between 1966 and the end of the seventies. A considerable increase in investment is expected especially during the eighties. Investment in housing construction, however, will decline further. This will also hold true for other building investment because of decreased spending on public infrastructure due to a drop in population and the high standards of living already achieved.

The share of capital investment in the total investment of fixed deposits will increase from about 43 per cent (1982) to almost 50 per cent in 1995.

Export demand will show a similar trend to domestic demand. It will slow down, but remain about 2 to 3 per cent above the growth rate for domestic demand. This slow-down of export demand is partly due to reduced growth of world trade and partly to the end of artificial competitive advantages created by the system of fixed rates of exchange.

Domestic and export demand are expected to increase by 3.3 per cent annually, compared to 4.3 per cent during the period 1966 to 1977. The rising domestic demand will have to be met by imports which will increase to 45 per cent in 1995, com-

Planning and building of offshore equipment

By F. SANDMANN

WE understand that the Oil and Natural Gas Commission (ONGC) will develop the production of oil and gas fields offshore Bombay and in the Bay of Bengal.

Dr A. K. Malhotra, Member Offshore, has confirmed that a quick realisation of these programmes is vital in order that India reaches self-sufficiency in energy supplies as soon as possible or even becomes an exporter.

For this reason and because the Indian industry is not yet in a position to provide all services and products it is necessary to use the services of specialised foreign companies. At the same time it is the intention that the Indian industry participates in the manufacture and assumes know-how and experience.

It is therefore necessary to transfer technology which is the basic asset of our company having competitive industrial activities. We are prepared to share technology with Indian partners on the basis of commercial conditions which should also include agreements regarding the respective responsibilities.

We expect that in providing technology transfer we will receive a preference in the supply of hardware which is not yet available in India.

In addition to this general policy I should like to point out the vital importance of the human relationship which should be based on mutual understanding and on an open approach and continuity of co-operation.

We can provide the following subjects of technology transfer:—

Transfer of technology

In principle the following instruments for the transfer of technology are available:—

a) The outright sale of products or rights

Mr Sandmann is managing director, Blohm & Voss, Hamburg, West Germany.

b) The patent licensing
s) The co-operation with one or several Indian companies. In

the fields in which we are in a position to assist India with the transfer of technology, we think that it should be done in co-operation with one or several companies. Co-operation agreements would be made to define the responsibilities of the partners and their remuneration. Such co-operation agreement can cover a wide span of possibilities, but clearly has no financial or corporate tie-up between the co-operating partners.

d) The joint venture with both partners forming a new operating group using the technology to be transferred.

Which of these models and their many in-betweens would be the most appropriate one for a special case has to be studied for each specific project taking into consideration all the conditions of the legal and business environment as well as the interest of the partners.

We could transfer technology for the construction of the following groups of equipment:—

1. Exploration equipment such as semi-submersible drilling rigs.
2. Construction equipment, like lay barges, derrick barges, launch

barges, multifunctional service vessels (diving, maintenance).

3. Production equipment, like topside facilities, single anchor leg mooring.

4. Fabrication yard for new construction or maintenance and repair.

The first group is exploration equipment, such as floating drilling rigs, construction equipment, such as lay barges, derrick barges and launch barges and maintenance equipment, such as diving support ships and multi-service vessels.

The second group of equipment are the actual production and production transfer facilities usually built from modules assembled onshore and installed off-shore on supporting structures such as jackets.

Both groups need building places and places for maintenance. It is therefore necessary for any nation with offshore plans to develop such places either by structuring existing yards in such a way that they fulfill the needs of the offshore industry or by building new facilities.

Phased co-operation

The model I am presenting for building the two groups of equipment mentioned is based on the pre-

Subject of transfer of technology		
Production know-how	Engineering know-how	Planning and system management
Processing of high-tensile steels	Basic calculation principles	Integrated time scheduling and cost control
Welding procedures	Dimensioning of local critical areas	Detailed production control
Production set-ups for process automation	Computer aided design application	Project management organisation
		Operating manuals

requisite that suitable structured building places are and become available to absorb the know-how of designing, managing, building and putting into operation of said equipment and production facilities.

As an example I will take a unit out of the first group of equipment, say, a craneship.

Generally we can divide the realisation of a crane ship into three phases: the project definition, the project implementation and the project realisation phase. During the first phase the following two tasks have to be performed:

First the environment the vessel has to work in and the services it has to fulfill have to be defined. This definition forms the base for the second step, the development of in-pu-t data for the feasibility study and exploration of financial resources, whereas the definition of the project is substantially influenced by the final user of the unit.

In a cooperation during this phase we believe that we can supply the basic design and that all other activities could be performed by an Indian partner where, of course, we will give assistance, if so required.

The second phase which I called the project implementation phase, is an in-between phase beginning with the decision of the investor that a project has to be realised and ending when all major contracts have been placed and the financing scheme has been finalised. This phase will be the most crucial one for the co-operating Indian partner and us because the smoothness of their working together will finally decide if the group is successful to secure the order for building the crane ship. Our obligation in this phase would be to define the project to such an extent that the cooperation yard is in a position to prepare an offer for the inquired crane ship.

Another important point during this phase is the definition of that equipment which has to be imported and of that which could be procured in India. Once defined, we would undertake it to provide this equipment and to search with all its connections and past experience in this task for financing of this package.

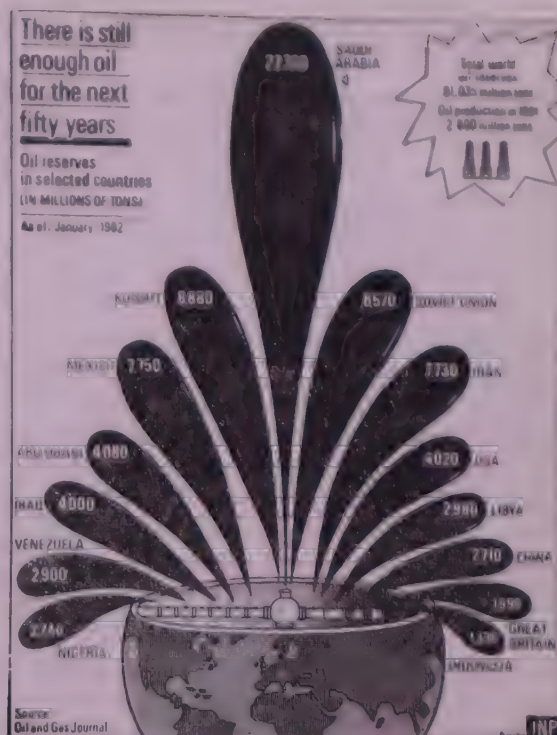
In case the joint bid has been successful and after contract negotiations which would be jointly performed, the third phase, the project realisation, would begin.

Training of Indian personnel

Our involvement in this phase will highly depend on the facilities and the organisation the co-operating partner has available. In any case it would be one aim of the co-operation to improve fabrication and organisation by making available our experience in this field to the co-operating yard. The way to transfer this experience would be the training of Indian personnel in Germany and, of course, the delegation of German personnel with the required skills to the co-operating yard, who will have spill-off effect such accelerating the transfer of experience.

In the following I will give a listing of the main activities which could be performed by us either in our home office or at the co-operating yard:

1. Detailed design and coordination with classification societies and other regulatory bodies.
2. Development of workshop and co-ordination drawings.
3. Procurement, inspection and expediting of equipment and material.
4. Subcontracting for special services.
5. Material handling, intermediate storage and control.
6. Fabrication including detailed work planning and performance control.
7. Quality control, quality assurance and weight control, including documentation.



8. Testing and putting into operation.

9. Project management.

The project management is to assure and to enable the co-operating yard that the project it realised as specified in time and on budget to the satisfaction of the client.

The project management skills and tools available with us have been developed especially for offshore projects in order to fulfil the demands of the industry.

The other activities have always been performed by the yard but had to be increased in their extent and in almost any case had to be substantially improved.

Model for transfer of know-how—Crane ship

Phase 1 Project Definition	Phase 2 Project Implementation	Phase 3 Project Realisation
Environment Data	Decision of Investor to realise the Project	Improvement of Fabrication and Organisation
Basic Design	Provision of Documentation, Material take-off and equipment List	Training of Indian Personnel
Financial Resources	Placing of all relevant Orders for Subcontracting	Delegation of German Personnel
	Finalising of Financing Schemes	

Onshore infrastructure for offshore services

IT is of paramount importance for the Indian national economy that it explores and exploits the offshore resources in the fastest and most efficient way. In this connection it should not be forgotten that fast and efficient exploitation also means the availability of an adequate onshore infrastructure for the building as well as mainly for the repair and maintenance of the respective equipment. When we talk about this, we mean that adequate facilities must be available inshore in order to ensure fast repair possibilities for the valuable offshore equipment to minimise the losses in oil and money resulting from such necessities for repair and maintenance.

In view of the large expansion plans of the ONGC and consequently the large amount of additional equipment necessary for the fulfilment of these plans, we believe that additional capacities especially for the repair and maintenance must be created newly or existing ones in the major shipyards of this country must be adapted to the needs of the offshore industry.

New shipyards

In this regard it may be of interest that only recently Blohm & Voss cooperated with Engineers India Ltd in carrying out investigations on the subject for merchant ships. This report, which in the meantime has already been presented to the Indian Government, has the objective to ascertain by means of appropriate measures of fact finding and data collection the future demand for repairs of the Indian merchant fleet and to predict the amount of repairs to be expected from foreign fleets. Based on these forecasts, the study report makes recommendations with regard to the extension of existing shipyards and the establishment of new ones.

It would surely be advantageous to elaborate a report of such kind also for the offshore industry in order to guarantee an optimal occupation of the existing technical capacities, and investigate locations and technical requirements for new bases in

Mr Patzwahl is with Blohm & Voss, Hamburg, West Germany.

areas which should be situated as close as possible to the exploitation areas.

By doing this it could be secured that capital expenditure, available capacities, existing infrastructure, and available experience of the existing shipyards could be used to the widest possible extent also for the needs of the offshore industry.

We are at your disposal also for this additional task. And we believe to be well qualified for it since we

By W. PATZWAHL

have during the last 30 years planned, built and successfully put into operation a number of new shipyards — many, though not all, in developing countries. A few examples of our activities in this field are the following yards:

1. Korea Shipbuilding and Engineering Corporation, Busan, Korea.
2. Kuwait Shipbuilding and Repair yard Co (SAK).
3. Persian Gulf Shipbuilding Corporation, Bandar Abbas.
4. Eleusis Shipyard, Greece.

Close links

The close links of our consulting department with our technical and commercial organisation ensure that the customer receives simultaneously the benefit of the latest production methods and technological developments.

German economy : A look into the future

Concluded from page 19

pared to 25 per cent in 1977. The faster rate of growth of imports than of exports will result in a continuous decline of the surplus in the balance of visible and invisible earnings.

Compared to 1978, prices will rise again, since in the long run a certain adjustment of rates of inflation among the European countries is expected. The Federal Republic of Germany, however, will succeed in remaining one of the countries with relative price stability. Till 1995 an inflation rate of 3.5 per cent is envisaged.

It is expected that in future productivity will increase more than

The special services of this department which can be made available include:

Market studies.

Feasibility studies.

Planning work of all kinds for new shipyards as well as for the extension and modernisation of existing shipyards and other maritime industrial installations, like for example also offshore repair and maintenance bases.

Preparation of tender documents.

Evaluation of tenders.

Supervision and inspection of equipment supplied by subcontractors.

Supervision of construction until the complete plant is handed over to the client.

Training of the client's personnel.

Delegation of key personnel.

Advice on contract matters.

Assistance in arranging of financing.

Auxiliary craft like barges, launches, landing craft, ferries, tugs, supply vessels, etc are essential for the offshore operation. Although vessels of these types normally do not belong to our building programme because of their limited size, we could, through our connection, make available suitable designs to the Indian shipbuilding industry including supply of material packages, financing and technical assistance if required.

production. As a consequence thereof, there will be a decrease in the number of available jobs from about 25 million in 1982 to 23.2 million in 1995. This decrease will occur at a faster rate towards the end of the period under review.

Simultaneously, there will also be a decrease in the number of job seekers from about 27 million at present to 26.2 million by 1995. This imbalance on the employment scene constitutes one of the pressing problems confronting the Federal Government and German economic policy.

Introduction to Euro Pace

By G. BRAUER

EURO PACE is a joint venture company established by EUROLOG in Hamburg, W-Germany, and PACE in Edinburgh, UK. The company is registered in Hamburg and represents a number of group companies and subsidiaries in the UK, Norway and West Germany. The basic subject of our business activities is software e.g., management services, organisation and engineering.

In pre-oil times, with regard to the North Sea, we have been working in various fields of structural, mechanical and electrical engineering and, to a great extent, in shipbuilding. As a matter of course, these activities are still kept in the programme; however, the main interest of our joint venture is devoted to the offshore industry.

Software to control offshore projects

It is very clear that the extent of project control to be applied corresponds with the scope of software needed.

In Norway, for instance, where offshore projects were broken down into small parcels in order to bring employment even to remote parts of the country, extensive systems were applied to keep all the components spread out under control.

The enormous importance of project management techniques and procedures for offshore projects became obvious in the past 10 years, when the physical extent and the financial demand of these projects grew beyond any expected limits.

An offshore project today is a huge network connecting various factors, such as contractual obligations, operations to be performed, material to be supplied, or services to be rendered.

Everything is specified to the detail, at predicted cost and carefully scheduled.

We do not have too much of an opportunity to apply methods and procedures taken over from the shipbuilding industry.

Mr Brauer is with Euro-Pace, Hamburg.

Shipbuilding has been developed over centuries and, know-how and experience have been growing accordingly, ready for application and ready wherever and whenever needed.

No trial-and-error approach

The demand of oil and the rapid development in the oil related industries, the degree of acceleration we are confronted with, do strictly prohibit a trial-and-error approach.

With regard to the difference between shipbuilding and offshore I refer to a comparison:

It takes the art of a naval architect to build a ship and it takes the art of an aircraft pilot to fly a Dakota. As far as offshore industries or flying a Boeing 747 is concerned, it takes a lot of procedures.

Organisation, flow of information, skill in technology, skill in planning and control procedures:

To gain control over a project, or over a number of projects, a project management (PM) team has to be established. Provided that several projects have to be handled, one head of projects has to be appointed. The head of projects will be responsible for all projects, he will report to the companies management. For each project, a project manager has to be appointed. The project manager is responsible to the head of projects and will not directly report to the management.

The principle of project management teams applies to oil companies and contracting companies as well. Regardless of what types of project has to be handled, whether construction, installation or operation, any project deserves the undivided attention of a project team.

Companies with a functional organisation have to overcome the potential problem of a conflict between functionally arranged departments and the project management system. The solution to this problem is a matrix organisation with clearly defined duties e.g., responsibilities and procedures for each post within the system.

Project management systems are built up to render adequate attention

to all projects. And project management systems must be defined, arranged and structured in such a way, that the communication between all relevant participants of a project is improved and accelerated and not slowed down.

Good communication and accurate documentation are essential for a clear understanding between the company and their clients. Typical contract conditions of North Sea projects specifically state that full documentation will be maintained during the progress of the works and thereafter maintained for a period of two years from final completion.

Many contractors have been known to have great difficulty in justifying sums due to them because of lack of vital information in a written form. It will be essential to have the correct written material in order to prepare a case, for example.

We have been involved with work of three Norwegian module fabrication companies and we are working in engineering projects. We work for Highland Fabricators in assisting estimating and remeasuring the total scope of work for the tension leg platform contract.

We work for Shell assisting in preparation of final accounts and claims against contractors who were involved in module fabrication.

Our latest project with Statoil refers to the design and fabrication of a Landing Terminal for North Sea Gas.

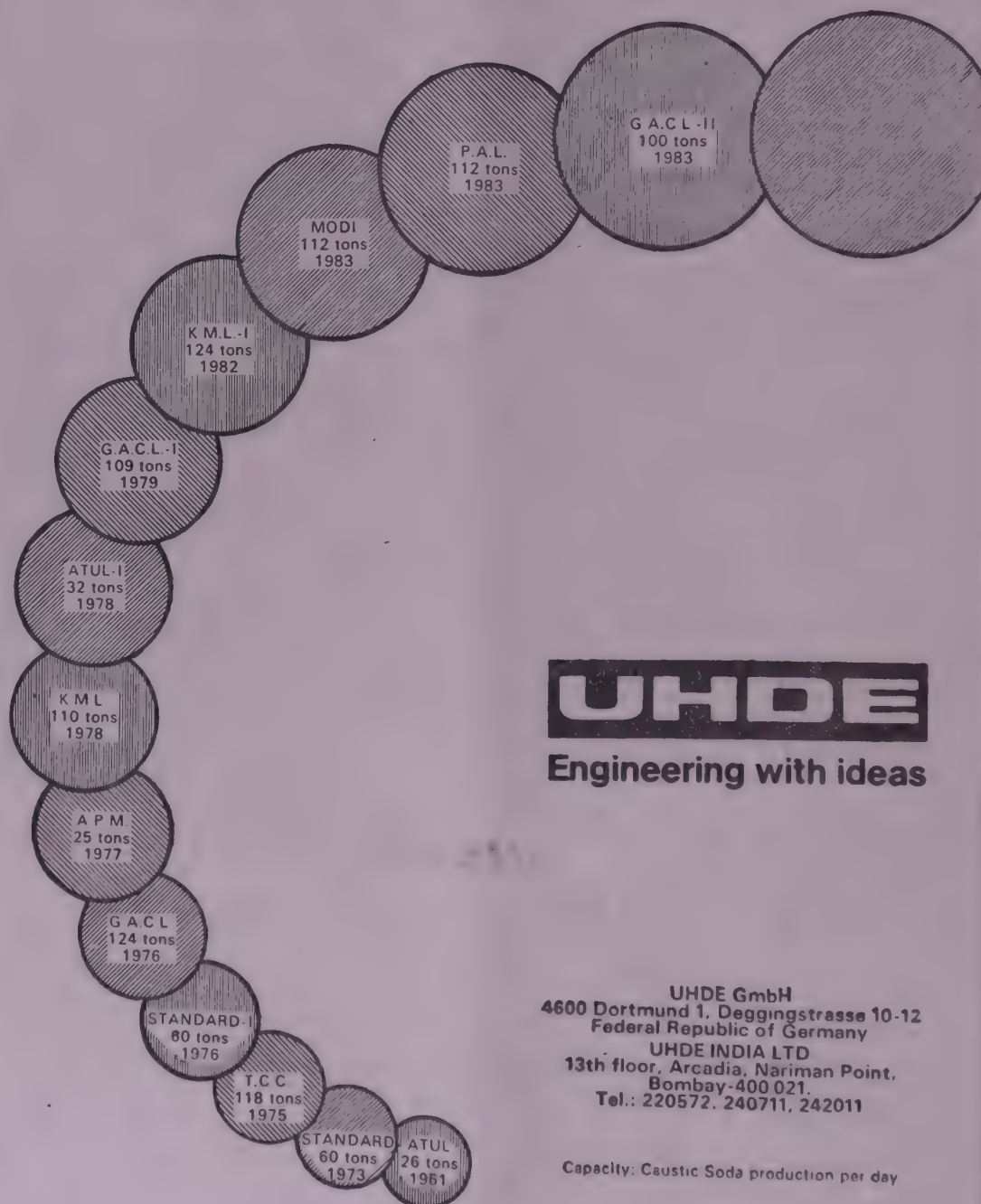
It is not reading a reference list, I just wanted to convey an indication of the range of application.

Planning and progress control

A project comes into existence when a demand is recognised, the time of the demand has been ascertained and, the feasibility is proven. From this moment on, a sequence of phases will be lined up until the end of the project. It is a consistent string of events and activities, and if it should happen that in the last phase of the project a delay becomes unavoidable, it might be that this delay has been created years before.

Hence, permanent planning and progress control is essential for off-

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shore projects, particularly with regard to the tremendous cost involved. An idle oil or gas field with all the equipment involved would produce nothing else but cost in the range of US \$5 million a week.

With regard to status of progress and progress control, the planned completion date must be a safe event. In case of deviations, it might happen that major activity sequences have to be changed in order to maintain the date of completion.

Furthermore, it cannot be avoided that more detailed information, generated e.g. by detailed engineering, causes major changes in the schedule. And still, the target has to be met: completion in due time. And finally it has to be taken into account that all supplies of hardware and services have to be coordinated with the schedule including variations of planning.

It is well known that network planning systems are appropriate tools to solve the problems indicated. It is possible to perform progress and cost control combinedly.

However, it is necessary to organise the input stream precisely and to arrange for proper evaluation of the computer output. Furthermore, lean intersections to be provided for detail planning, this way catering for due consideration of basic job orders, variation orders or detail completion reports.

Basically, planning is part of the overall project documentation system.

Fundamentals of Bonn's policy towards foreigners

Concluded from page 17

ing about the occupational integration of young foreigners. This applies above all to educational measures, language tuition and the provision of housing.

In order to improve integration, the Federal Government is preparing for adoption by the legislature before the end of 1982 an amendment to the 'Foreign Residents' Act (Auslander-Gesetz) with the aim of creating a clearer basis for foreigners' personal plans and living conditions. In addition, the Federal Government voted on December 2, 1981 a draft law on facilitating the naturalisation of foreigners who were born and grew up here. The Federal Government proceeds from the assumption that naturalisation can constitute an effective instrument of integration policy.

Parliamentary relations between Bonn and Delhi

Concluded from page 18

reaching agreement was made in India in 1981 when the interparty working groups of the German Bundestag conducted talks on questions relating to the Laws of the Sea Conference; Indian and German parliamentary delegations cooperate in international bodies. India is the largest recipient of German development aid which, in view of India's changing economic structure, has developed into a partnership between the two countries in international trade; 5, 7 per cent of India's exports went to the Federal Republic of Germany in 1981, and the Federal Republic accounted for 4, 7 per cent of India's imports. In the budget adopted by the German Bundestag for 1981 India was allocated DM 360 million in the field of financial cooperation; DM 36 million were granted for technical assistance in the narrower sense of the word. German private investments are increasing in India; they amount to more than DM 200 million.

Cultural relations between Germany and India go far back in his-

tory. German researchers played a decisive role in discovering the richness of the Indian peoples and languages, their religious, cults and customs. Indian mythology and philosophy were introduced into the history of German thought in the 19th century and had an impact on German literature. German cultural policy in India should not be limited to familiarising Indians with German culture — which was at a height most recently in the spring of 1982, when German expressionism was exhibited in the National Gallery of Modern Art in New Delhi — but should also devote itself to the culture of the host country. Both countries and peoples, the German Bundestag and the Parliament of the Republic of India, rely on one another in great hope and with great sympathy — the Federal Republic of Germany admires India's attitudes and achievements.

India which enjoys power and great esteem among non-aligned countries thus assumes a great responsibility for peace and freedom, stability and progress.

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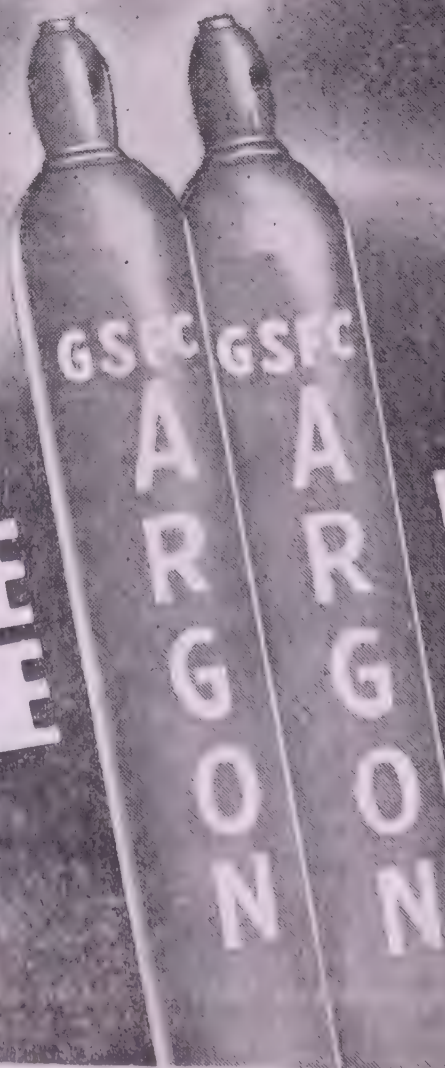
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Cost management systems

COMPANIES around the North Sea in Germany, Norway, France and in Britain learned in a short number of years what makes the offshore business different from other more traditional industries.

Firstly, the scale of construction is bigger. (Common designs of platforms are nearly as tall as the Eiffel Tower and four times the height of Big Ben's Tower in London.)

The cost of construction is greater, and the speed of development is faster than in traditional construction areas. In consequence, rates of expenditure are much greater.

Most of the platform building yards in Scotland are in remote underpopulated rural areas, amongst people whose sleepy gentle way of life has been rudely disturbed by the advent of North Sea Oil. In these parts of Scotland particularly and elsewhere in Europe we were unaccustomed to the sense of urgency brought about by North Sea oil development.

Since 1974 five purpose made Jacket building yards have been built in Scotland, four oil supply bases, three module building yards, three shipyards converted for limited oil construction work all in a country whose population is approximately 5,000,000. The impact has been substantial. For those of us who determined to learn from the beginning the experience has been unique for the rest it may be too late. In addition to yards in Scotland there were built in north east England seven more yards.

Last year 70 per cent of work for UK sector of North Sea was contracted for by British based companies even though substantial parts of the work were subsequently sub-contracted out in countries like Spain, Holland, Germany, Japan. Urgency

Urgency is what oil development is all about. The compression of activities on construction in time and in space; the rapid expenditure of large sums of money; the serious time and costs consequences of changes (on average design work is only between 55-75 per cent complete when construction commences) all these require careful planning, cost control and management systems to reduce the risks to client and contractor.

In the North Sea bad weather conditions mean there are only a few months when installation work offshore can be done. This causes even more compression of activities to realise deadline dates

so as to coincide with the "weather window".

In India for different reasons, certain works cannot be undertaken during the whole of the year. So rapid development

By T. JAMIESON

of offshore oil as we currently envisaged will also be subject to compression of activities to coincide with critical dates.

Each new area of exploration differs and throws up its own problems causing a continual development of technology. Just as we around the North Sea learned from the Americans how to use our local knowledge, world experience and skills to evolve a technology to suit the unique conditions in the North Sea. So I shall expect India to use its own skills and building on past experience here and elsewhere to evolve the most appropriate technology for the development of offshore India fields.

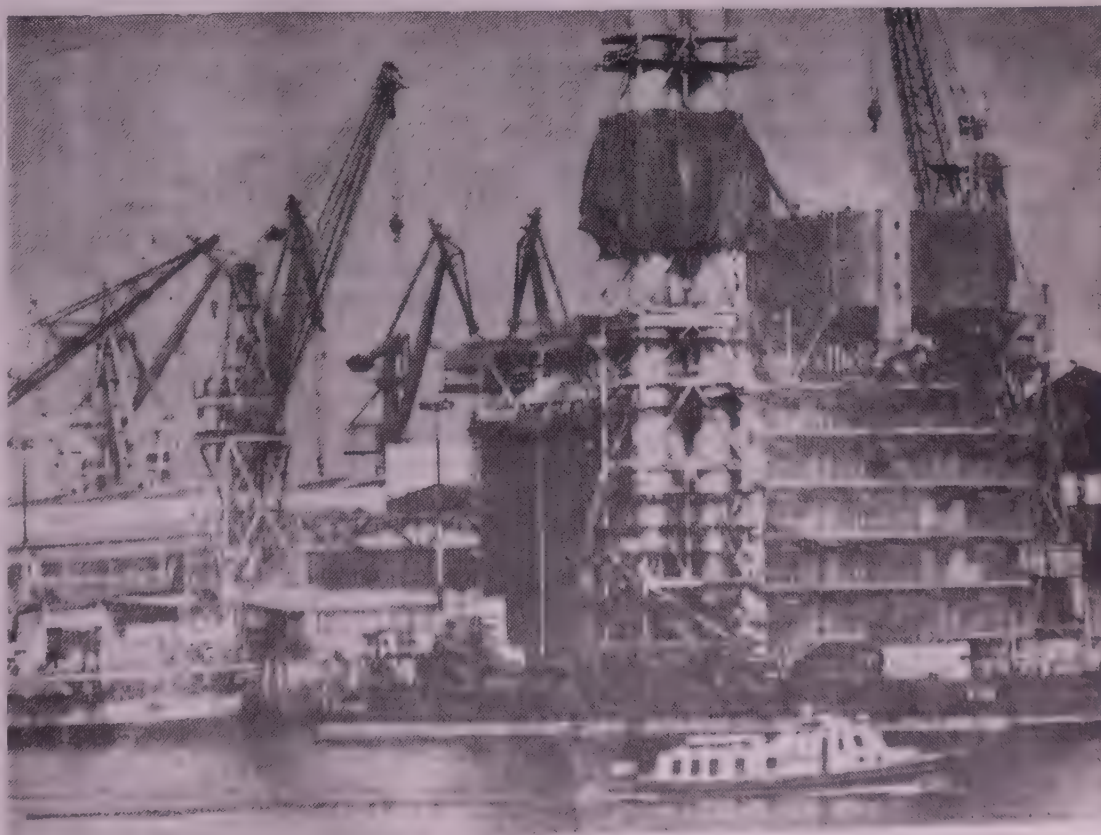
What are the main objectives of cost management in oil related or any other work? To ensure that both client and contractor get a fair deal and to encourage contractors to acquire new skills and technology which will best suit the clients present and future interests.

Size of company is no barrier to entering offshore oil work. Our company

is comparatively small concentrating on specialist areas of work. Indian companies wishing to be involved in oil construction should examine and decide which areas they are best suited to tackle. If companies do contract for offshore work clients and main contractors will have teams of full time specialists on site which will have to be matched by Indian company specialists to control contract and reduce financial risks.

Project Management Planning and Cost Control remain the main areas of our work. The range of services which we can provide these our own and is in areas:

1. Cost and project management for offshore and traditional construction work.
2. Pipeline design procedures and systems.
3. Technical requirements and load-out facility in an existing yard.
4. Weight control systems.
5. Load out systems incorporating management of movement and barge ballast control.
6. Technical specification for oil supply base and/or construction yard.
7. Through an associated company Hydrographic survey related to offshore work.



Living quarters on board Module "Fulmar A".

Mr Jamieson is with Euro Pace, Hamburg.

Offshore power generation

OFFSHORE power generation means to generate electricity in a platform-mounted plant of several 100 mw right on the location of a distinct hydrocarbon reserve in the sea and transmit the power by cable to consumers on the shore.

Offshore power generation comes into consideration when there exists an onshore electricity demand and when there is offshore gas available which cannot be brought to the shore economically by pipelines.

Such gas may be either associated gas which comes up with the oil production or natural gas from small finds. Associated gas and natural gas are not equivalent with respect to the requirements of offshore power stations.

But if a gas pipeline cannot be made viable it is relatively unimportant whether in the case of associated gas the gas must be disposed of by flaring or in the case of natural gas the find is rated non-commercial and abandoned. In both cases the gas is useless.

However, the economic structure of offshore power station projects differs very much from that of offshore gas production through pipelines and power generation may lead to economic success where a pipeline is totally uneconomical.

This can be made evident by considering the quantity of gas necessary for the viability of a project. I give you an example for this.

In the North Sea we have the gas pipeline from the Ekofisk field in the Norwegian Sector to the German coast. The distance is 450 km. This pipeline transports 60 million m³ of gas per day and it is of course a viable plant.

In comparison, only 3 per cent of this quantity could be sufficient for the viability of our power plant project EPOS of 350 mw net output at the same distance from the shore. There is no doubt, that a pipeline of 450 km length for only 2 million m³ of gas per day would be uneconomical.

Mr Frey is sales manager, Deutsche Babcock AG, Oberhausen.

These figures illustrate that below the viability range of pipeline installation there is a viability range of offshore power generation where by far smaller gas quantities are considered.

Power transmission

The power transmission is of a particular influence. Offshore power generation depends essentially on

By J. R. FREY

our capability to transmit the power economically over distances of several 100 km through the sea, it therefore, depends essentially on the HVDC, the high voltage direct current transmission technology.

Alternating current would be unfeasible at distances of more than 60 km due to the inductivity of the cable. Direct current transmission, on the other hand, can cover hundreds of km economically as the transmission losses are only about 0.5 — 1, 0 per cent per 100 km. Therefore, we can assume that normally the HVDC transmission would be employed in an offshore power plant project.

The electric energy is generated as in other power stations at alternating current. It is then transformed to higher tension and rectified in thyristor assemblies. On the shore the DC is reconverted to AC to be fed into the public grid.

Direct current cables are for the time being conceivable for max. 1,200 A and 300 kv, so that max. 360 mw could be transmitted by a single cable.

The power plant body of necessity is an integrated body which is completely outfitted in a shipyard and which is to be installed on the envisaged location as a ready-for-operation unit.

One reason for this is the striving to minimise offshore erection costs and secondly a modularised plant, assembled offshore piece by piece does not meet the quality demands one would make for a power station.

We therefore, have developed a modified jack-up platform configuration with the capability of lifting a complete power plant of 30,000 t and which offers the advantage of high stability during operation. An alternative proposal would be a large mounted plant.

Either configuration offers the advantage of mobility for a desirable change of location in case the fuel reserves would exhaust prematurely.

The power generation process proper is in an offshore power station firstly based on gas turbines because of their compactness. In addition waste heat recovery boilers + steam turbines could be employed. The question whether or not the gas turbines should be combined with waste heat recovery steam generators and steam turbines is purely an economic question.

Capacity of plant

The question on which capacity an offshore power plant should be layed out depends both on the available gas reserves and the power supply situation on shore.

In Germany for example 100 mw would be too little to justify going offshore whereas 700 mw is so much that a gas reserve sufficient for that capacity would most probably allow the installation of a pipeline.

In India the situation can be different. For Bombay an additional power of 150 mw out of the associated gas from Bombay High might be a valuable asset.

An offshore power plant has the typical cost structure of a base load plant: relatively high investment, relatively low fuel costs. For economy reasons it is desirable that the plant run continuously on a high load level.

Associated gas however, has contrary characteristics. It is a by-product of the oil production and its flow goes up and down with the oil flow regardless of the demands of a power plant. Gas flow may be high when power demand is low or vice versa. The economy of an offshore power plant run on associated gas may thus suffer from unexpected downtimes.

LETTERS

Scrap atomic power plants

SIR, — The atomic power plants have become a drain on the country's economic resources which are already bursting at the seams. The two units in Rajasthan at Rana Pratap Sagar have been on outage 245 times in the last 10 years i.e. an average closure once in every 4 days. The second unit, within nine months of coming into existence, had been shut down 22 times and over 200 engineering changes were effected in the plant till the end of last year. In the case of the Unit No. 1, for almost every day of full power operation there was a design change. In all, the loss to the exchequer arising from the closure of the Rajasthan atomic power plant has been computed at Rs 29 lakhs per day and this when the power generation is at only 40 per cent of capacity.

What is happening at RAPP is more or less true of other atomic power station at Tarapur which has of recent been at the centre of the controversy over supply of imported nuclear fuel. Why waste crores of rupees on such plants when we cannot ensure the fuel for them or cannot operate them successfully? Scrap them.

Angadhar Paranjpe
Bombay

Drugs: Strong patent system needed

SIR, — The drug industry in India, unlike in other countries, does not have the advantage of product patent coverage. An analysis of data on patent applications indicates that a slack patent system in India has discouraged many foreign investors from transferring their best technology to this country. The sharp fall in applications for patents only establishes that even Indian inventors are worried because of the lack of production of their inventions. However, the drug patents, whether weak or strong, prove patently irrelevant when the matter of price discipline crops up since price control on drugs is fairly comprehensive.

Little wonder, therefore, that even small drug firms are growingly feeling the need to have effective patent protection, and at least one unit is reported to have recently stated that "few firms will risk their money on basic research without the incentive of a reasonable protection for their discoveries". It will be in the fairness of things if the government realises that the Drugs (Prices Control) Order, 1979 and the existing licensing restrictions on big units, whether Indian or foreign, which can be tightened further, if necessary, are enough to prevent them from dominating the market and exploiting the consumer.

By giving a preferential treatment to small drug units in the matter of allocation of raw materials and in respect of pricing and by adopting other measures to promote the growth of the Indian drug sector as a whole, the government has already succeeded in impressing on the foreign sector to dilute its holdings in Indian drug units. Therefore, if a strong patent system is introduced, the government need not fear that this will enable foreign drug companies to dominate the market for drugs and impede the growth of small units.

Nakshi Chakrapani
Madras

Notice

Pursuant to Press Note dated 30.7.82 issued by the Ministry of Industry, Department of Industrial Development, Government of India, and as required under Rule 4A of the Monopolies and Restrictive Trade Practices Rules, 1970, it is hereby notified for the information of the public, that Wheels India Limited has applied to the Government of India for re-endorsement of licensed capacity, based on the highest production achieved during the last 5 years plus one-third thereof in respect of the goods described hereunder:

Brief particulars of the proposal are as under

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|-------|--|---|--|
| (i) | Name(s) of the person(s)/body corporate owning the Undertaking | : | WHEELS INDIA LTD. |
| (ii) | Capital structure of the applicant undertaking | : | Authorised Capital ₹ Rs. 500 lakhs

Paid-up Capital Rs 329 lakhs |
| (iii) | Details of the proposal | : | |
| | (a) Name of goods | : | Automobile Wheels |
| | (b) Capacity before Expansion | : | Installed Capacity 12,00,000 Nos |
| | (c) Re-endorsement on basis of highest production | : | 14,16,192 Nos |

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, [Shastri Bhavan, New Delhi, within 14 days of the date of publication of the Notice, intimating his views on the proposal and indicating the nature of his interest therein.

S. V. RAJAN
Secretary

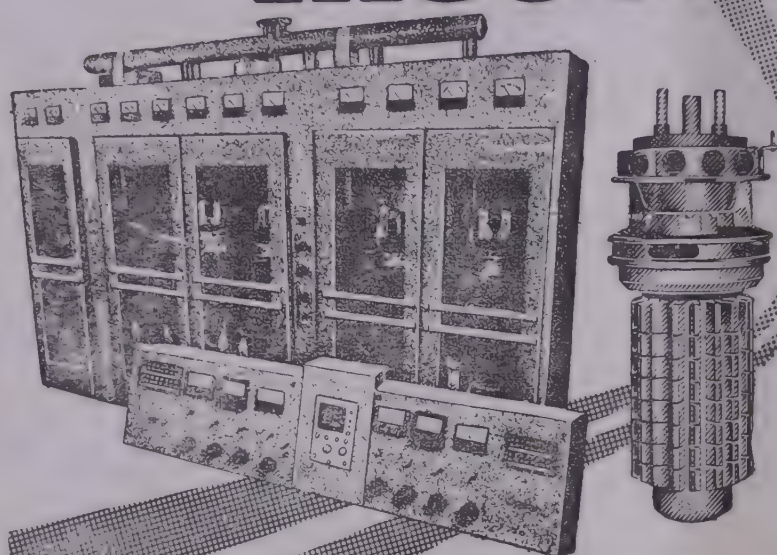
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Date : 20th August 1982

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With the new technological muscle, BEL brings a wide range of vacuum tubes for a variety of critical applications. Hot cathode Xenon/mercury filled thyatrons for high voltage switching applications, mercury vapour rectifiers with peak ratings of upto 20 KV inverse voltage and 40A anode current.

For high power applications, BEL's air-cooled, water-cooled and vapour-cooled triodes and tetrodes set the trend. Capping these technological triumphs are

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The driving force behind BEL's leadership thrust has been its components capability. BEL's in-depth expertise in high power vacuum tubes is only too well matched by its achievements in other component areas: germanium and silicon semiconductors, hybrid microcircuits, integrated circuits, printed circuit boards, precision crystal filters and ceramic capacitors.

Notwithstanding these technological triumphs, it is BEL's state-of-the-art systems capability as evidenced by its sophisticated systems and equipment that keeps India on the electronics map of the world.



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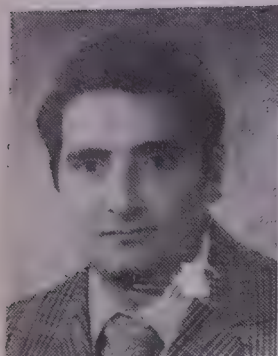
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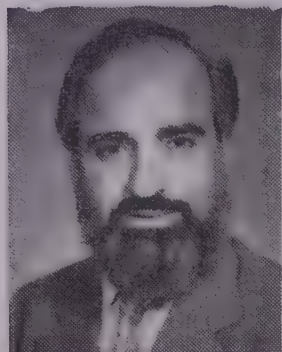
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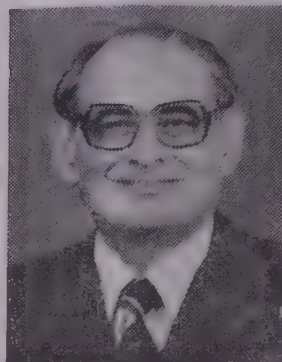
PEOPLE



Mehrotra



Subramanian



Kothari



Giorgi



Vakil

Mr R. K. Mehrotra, the principal adviser to the Islamic Republic of Iran Shipping Lines (IRIS), has been appointed managing director of Irano-Hind Shipping Co Ltd, Tehran, a joint venture of IRIS and the state-owned Shipping Corporation of India. Mr Mehrotra was earlier working in SCI as an engineer superintendent and was sent on deputation to Irano-Hind Shipping Co as technical manager in 1975.

Mr M. R. Subramanian, has taken over as director of the Indian Institute of Packaging. Mr Subramanian is also on the panel of the UN experts on packaging. He has published many research and review papers on the subject and also edits three packaging periodicals in India.

Mr D. C. Kothari, the well-known industrialist, has been awarded the Commander's Cross of the Order of the Merit of the Federal Republic of Germany for his contribution to the promotion of Indo-German industrial and economic cooperation. The award was presented to Mr Kothari by the German ambassador to India, M. R. Ramisch at a function in Madras on August 23, 1982.

Mr Kenneth Giorgi has taken over as vice-president (operations) at the Bank of America's Bombay branch. He succeeded Mr William Hyde who has been transferred to Taiwan. Before coming to Bombay, Mr Giorgi was working in the same capacity at Buenos Aires branch of the bank.

Mr Arun C. Vakil, secretary-general of the Indo-American Chamber of Commerce, has been awarded Ph.D. in economics by the University of Bombay. His thesis was entitled "Economic Aspects of Environmental Pollution in India." Mr Vakil also wrote a pamphlet for Commerce on "Environmental issues in India" in 1979.

Mr S. B. Jhaveri and Mr A. G. Sonawala have been elected re-elected chairman and vice-chairman respectively of the Groundnut Extractions Export Development Association for 1982-83.

Mr R. K. Chari has been appointed whole-time director of The Industrial Credit & Investment Corporation of India Ltd. He was previously the general manager of the corporation.

THE WEEK

The Union Energy Ministry has set up a six member panel to examine problems relating to coal supply to power stations. ★

The Maharashtra Government has decided to set up a new body called the Maharashtra Cotton Producers Co-operative Marketing Federation to operate the cotton monopoly procurement scheme. ★

The Commerce Ministry has formed a consortium of mills exporting jute bags and the State Trading Corporation to make joint bids for securing international tenders. ★

India has agreed to market diamonds for Ghana. Arrangements for their sale will be made by the Minerals and Metals Trading Corporation. ★

India has signed a memorandum of understanding with Iran for increased trade and industrial collaboration between the two countries. ★

The state power ministers have decided to set up a national power grid. ★

Japan has given India a concessional loan of 33 million yen for four projects in the country and aid of 48 million yen. ★

India has offered Mozambique a fresh line of credit of Rs 50 million for the purchase of Indian goods. ★

The Indian Overseas Construction Consortium has been awarded a contract worth Saudi Rials 450 million to build schools, hospitals and a mosque in Tabuk. ★

The Union Agriculture Ministry has sought an additional allocation of Rs 500 crores for schemes sponsored by the Centre during the Sixth Plan. ★

Wholesale Price Index

At 293.8, the latest available wholesale price index for all commodities for the week ended August 14, 1982, showed a rise of 0.2 per cent over the previous week and 1.3 per cent over the year.

Money comfortable

Conditions in the Bombay short-term money market were comfortable as of Monday (August 30, 1982). In the inter-bank call money section, both notified and commercial funds were renewed at 4.5 per cent. Fresh money was transacted at 4.5 per cent. The market closed at 4.5 per cent.

20 SEP 1982 SEP 4, 1982

WORLD MYSORE

COMMERCE

Yet another blow to Third World

IF western industrialised countries suffered from recession, inflation, exceptionally high rates of unemployment and soaring interest rates, the plight of developing countries was worse with a slowdown in the overall economic growth, stagnant volume in world trade that affected all commodity and raw material prices and increasing external payments problem, particularly for the non-oil developing countries. This is the picture of the world economy in 1981 and the first half of 1982 that emerges from the recently released Annual Report of the World Bank for 1982. The International Monetary Fund also makes very much the same points. Despite the increasing realisation by the industrial countries that inflation must be controlled and interest rates must come down, and some decline in the rates of inflation and interest rates in 1982 in the industrial countries, and the resilience shown by many developing countries, the growth prospects for 1982 are rather depressing. Says the **World Bank Annual Report: 1982** "Preliminary data for 1982 point towards a possible decline in real GDP in the United States, at best only moderate recovery in Europe, and about the same rate of growth in Japan as in 1981. Thus, for the industrial countries as a group, 1982 is likely to be the third year in a row of slow growth. This would make 1980-82 the period of most prolonged economic slowdown since the 1930s. The social cost of these developments has been severe".

The overall average economic growth in the industrial countries worked out to be $1\frac{1}{4}$ per cent per annum during 1980 and 1981 as against the average of slightly more than five per cent per annum in the sixties and 3.3 per cent per year in the seventies. The aggregate real GNP of non-oil developing countries increased by only $2\frac{1}{2}$ per cent in 1981 as against about five per cent in each of the preceding two years. This was lower than that recorded in the recession year 1975 and the lowest in several decades. A definite slow down in the growth of non-oil developing countries is attributed, by and large, to the restrictive anti-inflationary policies followed by these countries since 1979 as also to 'the prolonged sluggishness of activity in the industrial world'. This also resulted in the decline of growth of exports: volume of exports from these countries increased by four per cent in 1981 as against nine per cent a year during the period 1976-79.

As regards external payments, while the position of industrial countries improved, that of non-oil developing countries deteriorated further. During 1981 the

current account deficit of industrial countries declined from \$43,700 million in 1980 to \$3,700 million in 1981, mainly a result of decline in the volume of imports following recession and rise in the volume of exports. On the other hand, the current account deficit of the non-oil developing countries rose from \$87,000 million to \$1,00,000 million during the same period.

According to the IMF analysis, the oil price increases and the weakening of primary commodity prices (of which they are major exporters) tilted terms of trade which were most unfavourable to the non-oil developing countries. Prices of primary commodities such as cocoa, coffee, rubber, sugar, tea, tobacco, copper, tin, etc declined in the range of 10 per cent to 41 per cent during 1981. The extent of their suffering could be gauged from the fact that their share in world trade of these commodities ranged from 45 per cent in case of sugar to 100 per cent in case of cocoa. The external payments problem was accentuated also by the decline in the flow of private remittances from expatriate workers, as a result of the rise in unemployment in industrial countries, as also the receipts from tourism. International interest rates almost doubled between 1978 and 1981.

Taken together, all these factors exerted considerable strain on the non-oil developing countries as can be seen from the pattern of financing their current account deficit. Reserve accumulation dropped from more than \$12,000 million a year between 1976 and 1979 to \$1,500 million last year. At a time when interest rates kept on increasing, the share of official sources in the debt of the developing countries declined from 57 per cent in 1970 to 39 per cent in 1980. In contrast, the share of private financial institutions increased from 23 per cent to 50 per cent during the same period. It was deplorable that precisely when the developing countries needed more finance, official development assistance (grants plus concessional loans) from OECD group of countries declined by six per cent to \$25,500 million in 1981. Not only that, the share of IDA soft loan in World Bank group's total lending has also been going down. From 40 per cent in fiscal 1973 it has declined to 21 per cent in fiscal 1982. There is a corresponding rise in the share of World Bank loans from 60 per cent to 79 per cent during the same period.

The World Bank loans are short-term and carry an interest of 11.6 per cent, while IDA credits are for 50 years and interest free and are available at a nominal

service charge of 0.75 per cent. Part of the additional interest burden of \$ 10,000 million on non-oil developing countries in 1981 resulted from the change in their borrowing pattern.

In a recent World Bank study, it was established that the credits extended by the IDA have been put to productive use. Until recently India was a major beneficiary accounting for 40 per cent of the IDA credits. The World Bank group loans in the diverse fields have

played a catalytic role in the development of poor countries. The relevance of the World Bank which had been a witness and active partner in the development of the Third World for about 15 years under the stewardship of Mr Robert S. McNamara is gradually receding. The need of the hour is to reactivate the developmental role of a multilateral financial institution like the World Bank and in particular its soft affiliate IDA.

Mrs Gandhi's Mauritius visit

PRIME Minister Indira Gandhi has improved her international political image by paying a visit to Mauritius. It was necessary that a rapport was established between this country with the newly-elected government in that country, in which almost all the leaders are new-comers to government. The people of India have a great interest in the future of Mauritius, notwithstanding the great distance that geographically separates the two countries. This is because a majority of the population in that country is of Indian origin. History is replete with instances of affinity between countries whose populations have a common origin. History also shows that affinity need not lead to the subservience of one country to another. Thus when the Indians look upon the people of Mauritius with a feeling of affinity there is no political or military overtone in that. It is one of unmixed goodwill for the well-being of the people there. This feeling is undoubtedly strengthened by the broad agreement by the governments of the two countries on the major international issues affecting them. The joint communique issued at the end of the visit of the Indian Prime Minister to Mauritius disclosed that even on more general issues like disarmament and the Lebanon war there is a commonness of approach.

This is of course all to be expected. For the foreign policy of a country is generally dictated by its internal needs. Both India and Mauritius, being newly-freed developing countries with a large proportion of poor population, need external peace and internal tranquillity in order to speed up the process of economic development to enable the people to have a better life. Both have a strong urge to delink themselves from the erstwhile colonial masters. What, however, comes easily to a large and relatively diversified economy like India is very difficult to achieve for a small and undiversified economy like Mauritius where the economy is dominated by just one commodity—sugar. If the international market for sugar goes down, Mauritius is down. It is no secret that the international prices of sugar are highly volatile, since the producers do not enjoy the benefit of a protected market. Sugar price in the London market on August 6, 1982 was just £ 125 per tonne

against £ 178 per tonne on October 30, 1981. Fortunately for Mauritius as much as 500,000 tonnes of its sugar output of 650,000 is bought by EEC under the Lome Convention at a negotiated price which this year is £ 200 per tonne. All the same, more than India, Mauritius needs friends abroad to help accelerate the process of its economic development. It just so happens that outside of the world of the industrialised OECD countries, India is one country which possesses many of the skills and technologies that Mauritius needs.

This fundamental convergence explains why the major political change in the rout of the ruling Labour Party of Mauritius in the June 1982 elections by the more radical Mauritius Militant Movement (MMM), while marking a great change within the country, has not meant any significant alteration in the close relations between the two nations. Although Mr Aneeroodh Juganath, the president of MMM is the prime minister of Mauritius and Mr Harish Boodhoo is deputy prime minister, the real power lies in the hands of the finance minister, Mr Paul Berenger, who is of French descent. Apparently he also sees the necessity of maintaining a closeness in the relations with India. This is also dictated by the threat of increased militarisation of the Indian Ocean in the wake of the super-power rivalry in that region. The Mauritius claim to regain possession of Diego Garcia, which has been turned into a US military base, thus finds a ready response in every Indian heart which abhors colonialism (which foreign occupation of Diego Garcia represents) and militarisation which is promoted by the US presence in the Indian Ocean in that it inevitably gives excuse to the other super-power — the USSR — to come to the region. This military confrontation between the two superpowers to gain ascendancy over the other poses the greatest threat to the people in the countries bordering the Indian Ocean.

India has offered a package of financial, technical and other assistance, including Rs 10 crores to enable the government there to tide over the adverse balance in international trade and help in the overall economic development of this Indian Ocean island. India would

provide assistance in the fields of science and technology, oil exploration, of processing up to 1,50,000 tonnes of crude and development of the small-scale industrial infrastructure. The details would be worked out by the Export and Import Bank of India. The assistance would also include help in building new airports in Mauritius and setting up a State Trading Corporation and a ship-

ping line for that country. A study team of experts from India would look into the requirements of Mauritius. The Indian Prime Minister also offered all help to Mauritius in negotiating financial assistance from the International Monetary Fund, from which India took a large loan last year. India would associate the scientists from Mauritius in India's next expedition to the Antarctica.

Importance of wheat imports

THIS journal has persistently argued against exports of rice and other basic necessities. Our foodgrains 'surplus' have never reached such proportions as to compel us to search markets abroad and these so-called surpluses are illusory in the sense that they are there only because over 40 per cent of the population, which goes hungry, has no purchasing power to buy their grains. Our foodgrains production continues to be a gamble on the rains and in 1979-80 slumped to 109.70 million tonnes from 131.90 million tonnes in 1978-79. The recovery during the last two years has not been sizable, and even in 1981-82 the 'record' production has not been placed at more than 132 million tonnes. If any further evidence was needed to bring home the point to the government that our country's food output continues to remain vulnerable, this was provided by the fact that it was compelled to import over 1.5 million tonnes of wheat from the US last year and would be importing another 2.5 million tonnes during the next few months. The kharif prospects this season, in spite of the monsoon being favourable during late-July and August are uncertain and the total foodgrains stocks in the central kitty were also not high at 15.46 million tonnes on July 1 of which wheat accounted for 10.15 million tonnes and rice 5.12 million tonnes. This buffer stock cannot provide a cushion for the policy-makers of the country have acknowledged that the country must have a stock of 20-21 million tonnes — 12 million tonnes as buffer stock and operational stocks 8.2 million to 8.8 million tonnes for the initial period of the crop year beginning July. Reports have it that at least four million tonnes of wheat in stocks have been damaged by unseasonal rains and affected with *karnal* blight. It is not that the government will throw this wheat away but it all means that it is operating on a very thin margin. While, therefore, the government purchases of 2.5 million tonnes of US wheat should be welcomed it could well scrap its programme of exporting one million tonnes of rice to West Asia, USSR and Romania. There will, of course, be loss in foreign exchange earnings because of stoppage of these exports. But stability in prices at home, particularly on the food front, is much more important, since shortage of grain and high prices can create social and economic tensions, hurting the economy. Food prices have already shown disturbing signs of an upward movement.

Fortunately, the US purchases have been made in a business-like manner. The prices paid this year have been lower than even those paid for the imports of 1.55 million tonnes last year. The Agriculture Ministry has stated that f.o.b. prices this year ranged from \$ 157.50 to \$ 171.13 per tonne for western white/soft white and \$ 154.33 to \$ 132.70 per tonne for hard red winter. The average price of \$ 163.5 per tonne compares with \$ 172.98 per tonne paid last year. Even then the burden on our exchequer will be sizable and it has been estimated that, including the ocean freight and other expenses involved, the landed cost of this wheat will be Rs 450 crores. This would mean that as against the procurement expenses of Rs 163.23 per quintal of indigenous wheat, the landed cost will work out to Rs 170 per quintal. The ministry, however, has suggested that the landed cost is based on a calculation of a freight rate of around \$ 20 per tonne. If the government sticks to this position, a golden opportunity to help our shipping which is in distress would be missed. No Indian ship can operate on this freight rate which the Transchart organisation of the government (which is in charge of arrangements of transport of this wheat and other government purchases) has obviously calculated taking into account that the current freight rate from the US to Japan is about \$ 13 to \$ 14 per tonne. This wheat will have to be imported over a short period of seven months, from September this year till March next year, and this will mean that the Indian shipping lines will have to use their bigger vessels to transport the wheat. But on the other hand, no Indian port can take vessels bigger than 30,000 tonnes, which means that the 50,000 tonners and 75,000 tonners that will have to be used by Indian lines will have to be lightened by unloading the wheat in smaller vessels. Indian shipowners have pointed out that this will itself involve them into an expenditure of \$ 18 per tonne, which will leave them just \$ 2 per tonne of freight. Last year the freight element in the landed cost was about \$ 40 to \$ 42 per tonne and the government should consider payment at least at this rate to Indian shipping lines to reach a break-even point. This would raise the C and F cost, estimated currently at about Rs 170 per quintal, by less than Rs 2 and should not create a problem in price fixation.

LETTER FROM BONN

West-West trade war over Soviet gas pipeline

From RADHESYAM PUROHIT

TRADE war between the USA and the EEC is not new. Trade disputes between the USA and the EEC in the past were however discussed and settled without political differences. Thus the "Dillon Round of Talks" (1960-62), "The Kennedy Round" (1962-67) and "The Tokyo Round" (1973-79) were designed to ensure the collective trade interests of the West as a whole by removing existing barriers. But not this time when President Reagan imposed a ban on American companies as well as European companies manufacturing products under American licence to supply the equipment needed by the Soviets to complete the gas pipeline from Siberia to Europe, and the ban is being defied by European countries.

The crux of the problem is the

fact that the economies of both the USA and the EEC are export-oriented. And West Europe is undoubtedly more dependent on the export of its goods than the USA. Statistically the EEC is exporting about 24 per cent of its national products against only 8 per cent of the United States. This results in two problems: first, a tussle for new markets between the USA and the EEC and, secondly, Common Market's dependence on the so-called East-West trade. As far as the East-West trade is concerned, the USA can afford to be fully independent due to the vast size of its economy. West Europeans and particularly West Germany, on the other hand, are to a certain extent "dependent" on the East-West trade and political detente.

This "dependence" of West Europe on the Soviet or East Bloc is a logical consequence of the simple geo-political reality in Europe. West Germany, for example, is surrounded by the countries belonging to the Soviet-Bloc. Bonn has experienced the consequences of political blockade for more than two decades, leading to isolation and cold war with its immediate neighbours. In this period not only the political and economic relations suffered, but even human and family contracts on both sides of the "iron-curtain" became almost non-existent. The so-called detente came with Willy Brandt's "Ostpolitik" and contributed towards a fair political and economic understanding between West, and East Europe.

The Americans, however, failed to appreciate the political implications and also the importance of the detente in Europe. Moreover, the East-West commercial transactions were seen in the light of "dependence" of the West on the East and they were politically and economically overvalued. The German Institute for Industries (IW) has said that the USA attached more importance to West Europe's trade with the East Bloc as this suited the anti-Soviet attitude of the White House. In reality, however, there was no question of "dependence" of the West on the communist countries in matters of external trade. Highlighting West Germany's trade with the 11 "State trading countries" with a population of 1.4 billion, the Institute said that in 1981 Bonn's trade transactions with these countries amounted to DM. 38.8 billion corresponding to 5.1 per cent of the total West German world trade. Thus West Germany's "dependence" on the East Bloc was as high as with Switzerland, with whom almost



In spite of the US embargo, the Soviets are determined to complete the project as scheduled by 1985. Photo shows construction work in the region of Perm, about 1,000 kilometres east of Moscow. This 75-kilometre pipeline, a part of the total 4,600 kilometres, is likely to be completed by the end of November this year.

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EDITOR'S NOTEBOOK

Vadilal Dagli

Diamond prices crash

WHILE gold prices are recovering from their recent fall below \$300 an ounce, diamond prices continue to tumble in international markets. The fall during the past two years seems to be phenomenal. The price of a "D-flawless" one carat stone (the proverbial perfect diamond against which all diamonds are measured) has sharply fallen from \$80,000 in 1980 to only \$16,000 today. While the unit value is going down, the volume also is decreasing. As one leading diamond merchant in New York said: "We used to have customers who would buy diamonds worth \$2 million a month. Now \$50,000 is a good order". Diamond prices, along with those of precious metals, have been affected by the recession particularly in industrialised countries. For the diamond trade, the United States had developed into the biggest market and the setback to the US economy has told heavily on diamond prices.

There are some who believe that De Beers Consolidated Mines, the South African monopoly that controls 85 per cent of world's supply of uncut diamonds, had managed for the last four or five decades to keep the prices artificially high; they expect with the emergence of industrial diamonds on a large scale diamond prices would never recover to the pre-1980 levels. But the diamond trade, of course, is more hopeful. It expects that with the recovery in the United States and European economies, if not the next year, the year after that, diamond prices will come into their own. The world of diamonds has always been known as a world of monopoly and illicit trade. It is estimated that diamonds worth at least \$1 billion a year get smuggled into various countries such as Italy and Spain, Thailand, Indonesia and the Philippines and till lately in Iran. Smuggled Russian diamonds also appeared on the Indian scene on the eve of 1980 parliamentary elections, and many linked this to the financing of elections of some chosen candidates.

Collapse of Arab power

ALTHOUGH Arab countries feel completely humiliated over their helplessness at the time of invasion of Leba-

non, they are making noises to suggest that they are evolving a "global confrontation strategy" against Israel and its mighty supporter, the United States of America. In the first week of September a summit of Arab leaders will be held where they will review policy towards the United States. A spokesman of the Arab League said that the United States did not change its Middle Eastern policy, the summit declaration would contain a threat to invoke economic sanctions against the United States. But can a declaration be a substitute for decisive action during the Israeli invasion of Lebanon which decimated the Palestine Liberation Organisation? But this helplessness might have done good to the Arabs in some respect. They feel the compulsion of readmitting the United Arab Republic of Egypt to the Arab League from which it was expelled in 1978. This will be a major development because it was Egypt under President Nasser which had led the Arab world successfully during the Jordanian civil war in 1970 when the PLO was expelled from that country.

Today the Arab world is missing a leader like Nasser. They have flamboyant leaders like Col. Gaddafi of Libya who behaves like Nasser, but during the Israeli invasion he advised the guerrilla leader Yasser Arafat and PLO guerillas "to commit suicide so that their blood rekindles the Arab revolution". This made Arafat mad. Another powerful country, Saudi Arabia, would give money, but nothing more. It is this attitude of the Arab countries which prompted Yasser Arafat to make this utterance of agony before leaving Beirut for Greece on August 30: "The snows of Mount Hermon were warmer than the hearts of some of the Arab regimes". The Arabs might play the most clever card. Believe it or not, they might recognise Israel (India please note). President Habib Bourguiba of Tunisia has sent one proposal to be included in the Arab summit agenda which calls for the recognition of Israel in the context of 1947 UN resolution which stipulated for the partition of Palestine into the two states of Israel and Palestine. So the Arab states will

recognise Israel and force the United States to recognise the right of Palestinians to have their own state which, the Israelis have illegally occupied. This also shows complete disillusionment of the Arabs in so far as the two super powers are concerned. It is not accidental that the Islamic conference which was recently held at Niamey in Niger condemned both the United States and the Soviet Union. The Soviet inactivity during the Israeli invasion of Lebanon may also have prompted the clubbing of it by the Arabs with the United States for its usual condemnation. This is a noteworthy development.

Censoring history

THE Indian Council of Historical Research (ICHR) has partly redeemed its prestige by withdrawing the ban it had earlier imposed on the circulation of its own journal, merely on the ground that it contained a critical review of the second volume of the biography of Jawaharlal Nehru written by Dr S. Gopal. The review was not to the liking of some persons. The point is not whether the adverse comments made on Nehru or on Dr Gopal's handling of his subject were correct or not. The point is whether an academic organisation set up with public funds like the Indian Council of Historical Research should function as a policeman over the thoughts and writing of scholars in the country. Obviously some one with overriding influence in the ICHR thought he would be pleasing the Prime Minister by suppressing academic discussion on Nehru. If that were to be achieved, then Nehru's own writings would have to be censored. For it would be difficult for anyone to excel in the criticism of Nehru what Nehru had written under a pen-name about himself in an article in *The Modern Review*. It is good to know the author Dr Gopal had expressed himself against the suppression of the review. The recent episode throws light on the continuing tendency to set the writing of history along a pre-conceived line, presumed to please the powers that be, that had led to the resignation of the noted historian, Dr Ramesh Chandra Majumdar from the position of the chairman of the Board of Editors for the History of the Freedom Movement in India.

SPECIAL ARTICLE

Industrialising backward Orissa

From P. C. MAHANTI

BHUBANESWAR

ANY discussion of industrial prospects in Orissa must begin with a reference to the Chief Minister Mr J. B. Patnaik's programme to invest Rs 1,000 crores in 1,000 days in new industries in the State. The massive central projects in the shape of the new alumina/aluminium complex involving an investment of Rs 1,400 crores and the projected steel plant at Daitari are important for the economic future of Orissa, but they are basically national projects which are meant to benefit the nation as whole.

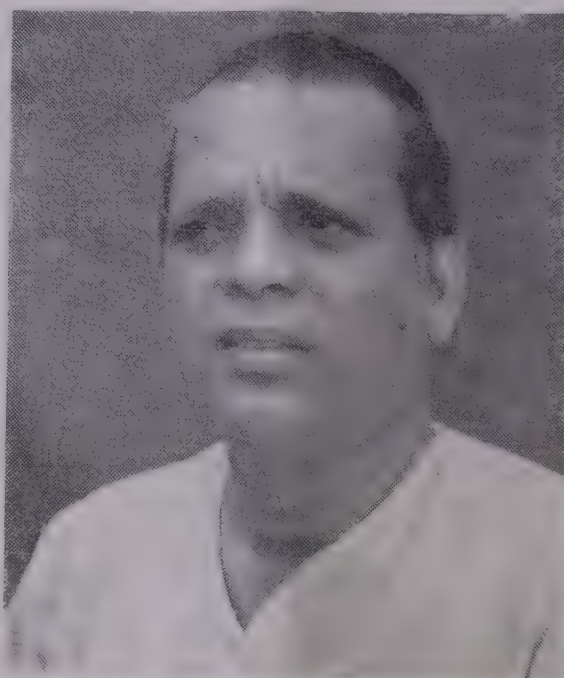
Mr Patnaik's programme has a quality of its own—it is helping build up an excellent investment climate in the State and at the same time create a new entrepreneurial class that is dynamic. Today more Oriyas are involved in industrial projects of one kind or another than even before, and a large number of educated Oriya youth who do not find any scope of employment in government or industry or services have turned to tiny industries as an avenue of self-employment.

However, the Chief Minister's programme is not only about creating small or tiny units only—it also places particular emphasis on medium and large industries as well. For the latter alone can sustain industrial growth on a secure basis apart from providing scope for considerable tertiary employment. On the latest count kept by the Industrial Promotion and Investment Corporation of Orissa Mr Patnaik's industrial programme has very nearly hit the target. Here are the figures:

	Rs crore
1. Total cost of projects under production	26.13
2. Total cost of projects under implementation	147.14
3. Total cost of projects under finalisation	901.00

Over and above these some 4,500 small industries have already been set up by individual entrepreneurs with assistance from the state machinery concerned in the matter of housing, finance and power. They are all viable units, official spokesmen say.

This writer had an hour long interview with the Chief Minister at Bhubaneswar when he explained the rationale of his rapid industrialisation programme and why in the first place he thought of a figure of Rs 1,000 crores as the target



Mr J. B. Patnaik

for investment in 1,000 days and not more or less. He frankly admitted that he did not expect the programme to be carried out to the last pie of the financial target, but was meant as the symbolic slogan for a big and bold programme that could fire the imagination of the people. It indeed has.

Considering the environment of economic stagnation and mass poverty in the State, only a bold and imaginative plan of action can be effective. Those who have ridiculed Mr Patnaik's programme have done so out of a lack of understanding of its significance or out of political opposition. However, Mr Patnaik remains unperturbed about the criticism and keeps concentrating on essentials—essentials like setting up the machinery to create the required infrastructure, and strengthening the agencies that are already there to promote and catalyse industrial growth and of course coax money out of the Centre.

He is one of the few chief ministers who have considerable pull with New

Delhi, and if the people of Orissa are still hopeful that a second integrated steel plant will come to the State, it is largely because of Mr Patnaik's ceaseless efforts to get things moving. Mrs Gaudhi has, of course, confirmed that the cancellation of the letter of intent to Davy McKee notwithstanding, New Delhi is going to set up the proposed steel plant in Orissa. Subsequently, Mr N. D. Tiwari, Union Minister for Steel and Mines, has given the latest information on the project—the public sector consultancy firm of Metallurgical and Engineering Consultants is now preparing a fresh project report after which tenders will be floated to buy equipment from abroad.

Balanced character

One merit of Orissa's current industrialisation programme is that it has a balanced character. All the districts of Orissa are benefiting in varying degrees though districts like Cuttack and Puri with a stronger infrastructural base have a greater share than others. Moreover, whatever industries existed in the State before were mostly in these two coastal districts. Now the thrust of the government's policy is on spreading out industries to all parts of the State based mainly on local talent and resources.

Something needs to be said about the industrial promotion machinery that exists in the State. There are the two principal instruments of industrial development agencies in the State—the Industrial Development Corporation of Orissa (IDCOL), the 20-year old government organisation that has now become a Rs 70-crore a year turnover affair and plans to grow further through diversifications and expansions. The other main agency is the Industrial Promotion and Investment Corporation of Orissa (IPICOL) which originally started with the purpose of functioning as a catalyst but of late has come into many joint ventures with private sector organisations, the prestigious Tatas included.

Other institutions that constitute part of the machinery are as follows:

First of all, there is a highpowered nodal committee consisting of all the secretaries of various departments and the

chief secretary as the chairman. The function of this body is to expedite proposals for setting up industries and take decisions on various issues, obtain government sanction and review the progress implementation of such decisions.

Then there is the Industrial Coordination Bureau for improving coordination among various agencies and for speeding up grant of various facilities like land, water, power and finance to new industries. The Bureau will also provide general guidance to entrepreneurs intending to set up medium and large industries and provide assistance for submission of formal applications to different organisations. There is a foreign investment division to help those non-resident Indians who wish to invest in the State. Then there is the Infrastructural Development Corporation specifically set up to expedite the creation of infrastructural facilities like land, water power supply etc.

New projects

It would be interesting to take a look at some of the new projects which have been promoted in the joint sector by the IDCOL and IPICOL. The Tata-Idcol venture in refractories is a notable example, the Tata group company concerned being Belpahar Refractories. Another important joint venture project is Orissa Sponge Iron, incidentally, the first private sector sponge iron making plant in the country, which is expected to go into production soon. Ipitron Times, meant to manufacture electronic watches is yet another important venture. Other major projects worth mentioning are Orissa Drugs & Chemicals, and Dark Wood Panels.

A project deserving special mention sponsored by the IDCOL is Idcol-Machinery Ltd, a joint venture of Idcol and Star group of Bombay. It has set up a large textile machinery manufacturing unit in the nucleus industrial complex at Chandaka in technical collaboration with Spindel Fabrik Seces (SPIFA) of West Germany. The foreign investment board has already approved this collaboration. The project has large scope for ancillary industries and will go into production in two years' time. The sophisticated ring spinning frames which are going to be produced in Orissa are at present not produced in India. The ring spinning frames are suitable for spinning all types of fibres including cotton, wood, manmade fibres and acrylic. This is the only frame design specifically for processing long fibres in woollen and worsted industry.

Another notable venture is the liquid oxygen explosives unit being set up by Derby Industrial Project Ltd. The project is expected to be commissioned in the near future. It is licensed to make 3,000 tonnes of industrial explosives per year and is located in an area which has large coal and iron ore reserves in addition to chrome, bauxite and other mineral deposits. It is meant to be an import substitution project since the country has been importing a large quantity of explosives per year. The plant and machinery has been designed by AIR Lique of France and Mitsubishi of Japan and will be making the components.

The IPICOL is also setting up another sponge iron project in collaboration with the Tata Iron and Steel Company, called Ipi-Tata Sponge Iron Ltd. It will have an annual capacity of 90,000 tonnes, and will also be located in Keonjher district where Orissa Sponge Iron is putting up its plant. The IPI-TATA project cost has been computed at Rs 34.57 crores and a large part of the share capital will be raised through public subscription. The project has an indigenous

technology called T.B.R. process developed by TISCO and will be using non-coking coal as the principal reductant.

Last but not the least, one must mention the Rs 30 crore ferro-vanadium project at Rajgangpur in Mayurbhanj district. The vanadium bearing titaniferous magnetic iron ore deposits, which occur in Mayurbhanj district, are among the best in the world. Over two million tonnes of recoverable ore containing one per cent. V₂O₅ have been proved in addition to other virgin deposits. Technology tests have been conducted at Elkem, Spiger Verket, Oslo, Norway, to establish the suitability of this type of ore for electric smelting process for manufacturing ferro-vanadium. This project envisages production of 480 tonnes of ferro-vanadium and 48,000 tonnes of low phosphorus pig iron as by-product annually. The project is being promoted in collaboration with the Indian Metals and Ferro Alloys of which Dr B. D. Panda is the head.

Power situation

With the satisfactory progress of the monsoon the power situation in Orissa

Orissa power system generation capacity

i) Existing

Power Stations	Installed capacity	Energy Capacity
a) Hirakud (H)	270 mw	1,130 mu
b) Balimela (H)	360 mw	1,185 mu
c) Mechhkund (Orissa share)	34 mw	350 mu
d) Talcher Thermal	250 mw	1,100 mu (50% PLF)

ii) Under construction.

a) Talcher Thermal (T)	220 mw	1,100 mu (55% PLF)
b) Rengali (H)	200 mw	550 mu
c) Upper Kolab (H)	240 mw	860 mu
d) Indravati (H)	600 mw	1,960 mu

iii) New projects

a) 7th Unit of 37.5 mw at Hirakud (H)	37.5 mw	175 mu
b) Addition in Rengali (H)	100 mw	200 mu
c) Orissa share of Farraka (T)	—	560 mu
d) Super Thermal Stn. at IB Valley (T) (Seventh Plan)	810 mw	3,940 mu
	3,121.5 mw	13,130 mu

iv) Captive stations

a) At Talcher (T)	840 mw	(NALCO & IMFAL)
b) At Daitary (T)	120 mw	(SAIL tentative)
c) Talcher Fertiliser	Capacity to be decided by consumer	
d) Rourkela Steel Plant		

has improved, and cuts on 22 major industrial undertakings, including Rourkela steel plant, have been relaxed. One hopes that the cuts will be fully withdrawn as water levels in the reservoirs rise further in a few months with more rainfall this season.

Here one point needs to be stressed straightway. As the Chief Minister has himself emphasised so often, Orissa is not a power surplus state. In fact, with a rapid increase in the power demand due to the industrial programme, there should be a deficit considering that the firm generation capacity is rarely above 450 mw. This is because of the State's over-dependence on hydro-electricity which accounts for 73 per cent of the total power generation. Power demand in the State has been increasing fast as will be clear from the figures given below:

Average demand in	March	1980	300 mw
	October	1981	460 mw
	October	1982	490 mw
	March	1983	550 mw
	(estimated)		

It will be seen that the power demand has jumped by 160 mw between March 1980 and October 1981 and rose again by 30 mw in the following year and is currently rising at the rate of 60 mw annually. Clearly the situation calls for additional power generation capacity.

Orissa has to continue to rely on hydro-electricity to a large extent because of its vast water resources but the gross imbalance between hydel and thermal power is being corrected. Two new units of 110 mw each are being added to the Talcher thermal power station which has an original capacity of 250 mw—one of the new units has been commissioned and the other is due to go on stream by the end of this year. There is also a new super thermal power project in IB valley to be taken up during the Seventh Plan. Orissa will also get a share of power from the Farakka super thermal power station when that is ready in the next five to six years.

A point needing to be emphasised again is that though high priority has

been accorded to industrialisation, agriculture is not being neglected. In fact, Mr Patnaik does not see the problems of development in such dichotomous terms—both agriculture and industry are part of the total economy supporting the Oriya people and he wants to develop them both. An index of the progress of agriculture is the increase in fertiliser consumption of 15 per cent annually, and it is likely to increase further. There is a crash plan to expand irrigation facilities and a plan to supply farmers with better seeds and educate them in better techniques of cultivation.

So it is total planning—whether expansion of technical education to supply the manpower needs of new industries or promotion of tourism in a State that offers many enchanting possibilities of development or the pressing needs of the rural poor they, are all in the economic development programme of the Patnaik Ministry, which are being implemented as well as they can be in a poorly developed State like Orissa.

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COVER STORY

Receding relevance of World Bank

By Vadilal Dagli

THE forthcoming annual meeting of the World Bank and the International Monetary Fund to be held at Toronto in Canada might witness an unprecedented confrontation between the US and the Third World. The US, led by President Ronald Reagan, has emerged as the single most powerful opponent to the welfare of the poor world. This has shocked and dismayed its allies, particularly France and Canada. At a time when the world economy is passing through its worst crisis since the dark days of the depression of the 30's, at a time when Europe is facing a prolonged recession and at a time when the developing countries are fighting for survival, the US is trying to undermine the utility of the World Bank and the IMF which have tried to soften the rigours of international economic inequality. Even the American business world is aghast at Reagan's stance. President Reagan is not only heartless towards the underprivileged in the USA but also towards the plight of the Third World.

A well-known American banker, Mr Geoffrey E. Gordon, asked in an article in the New York Times: "Is the US abandoning the Third World?" Mr Gordon said: "A central question at Toronto will be whether the US is gradually abandoning its long-standing commitment to help poor countries. The US is seen as blocking necessary increases in lending from institutions such as the IMF and World Bank. America's development aid, relative to the size of its economy, is projected by 1985 to be the lowest of the democratic industrial countries, while increasing emphasis is being placed on military assistance."

American liberal commentators have also lamented the fact that while the US has been asking the developing countries to lower trade barriers, expand private investment and have balanced budgets, the Reagan administration continues to impose new restrictions on imports from the Third World, shows its inability to revive private enterprise at home and indulges in massive budgetary deficits. Above all, it has

all the money in the world for military expenditure but very little for economic development of the Third World which incidentally, is the most dynamic buyer of American goods. So these commentators argue that the Reagan administration has not been looking after the basic interests of the American economy. Whether it is the expansion of the capital base of World Bank or IMF or SDR allocations or funds for the World Bank's soft window the IDA, or the establishment of an energy affiliate to the World Bank, the US has opposed these moves to such an extent that both the World Bank and the IMF have been paralysed. As far as the World Bank is concerned, its relevance to the Third World has become marginal, while private western banks have been pushed forward by the Reagan administration to take the place of international organisation like the World Bank and the IMF. But western banks are in a state of near-collapse and are looking forward to a rescue operation by the IMF which ironically the Reagan administration is trying to undermine.

The anguish of America's allies was expressed by two professors of the University of Toronto, Mr Cranford Pratt and Mr Mel Watkins. On the eve of the Fund-Bank meeting they told a press conference in Toronto that these two international institutions appeared to have become "an-increasingly direct agent" of the Reagan administration. They argued that at the Ottawa meeting the extent and direction of US influence will be a key issue.

One issue that the two Canadian economists discussed forcefully was the Canadian Prime Minister's proposal for an energy affiliate to the World Bank to help finance oil exploration in the Third World. Though supported by 21 Presidents and Prime Ministers at Cancun, it would not be even on the agenda of the Toronto meeting because the US is opposed to the energy affiliate. The World Bank Report 1982 has expressed its helplessness in these words: "Many directors felt that the esta-

lishment of an energy affiliate, a proposal endorsed by the Development Committee in fiscal 1981, remained the most attractive method of raising additional funding for energy investment in developing countries. It was conceded, however, that there was no immediate prospect for an agreement on the affiliate's establishment." So the time has arrived for the world community to challenge Reagan's policy regarding the energy affiliate which is not governed by the concern for the world economy but by the interests of his oil baron friends.

II

The world economy is in turmoil. Both industrial and developing countries are suffering from the mismanagement of international economy and inequitable international economic order in which the decision-making power remains mainly with industrialised countries who themselves are in the midst of unprecedented financial crisis. For instance, the recent recession which started in 1980 and which was to last only for a year may now last for three years, till the end of 1982. This is the longest post-war recession that the West has faced. Unemployment in industrialised countries has crossed the 22-million mark. Every 10th man in the work force of the United States is out of job. The situation in European countries is much worse. The World Bank Annual Report for 1982 neatly summed up the situation when it said. "Preliminary data for 1982 point towards a possible decline in real GDP in the United States, at best only moderate recovery in Europe, and about the same rate of growth, in Japan as in 1981. Thus, for the industrial countries as a group, 1982 is likely to be the third year in a row of slow growth. This would make 1980-82 the period of most prolonged economic slowdown since the 1930s."

The IMF annual report for 1982 has also warned that not only recession in the West is worse than the 1975 recession but the growth in the volume of world trade has also fallen to an extremely low rate. The level

COVER STORY

and movement of interest rates and exchange rates among major industrial countries during the past two years have not only caused difficult problems for these countries but also for the rest of the world. The condition of weak demand and high unemployment in industrial countries is bringing increased threat of protectionism.

The imports into the industrial countries declined by 2½ per cent in real terms in 1981 and remained depressed in the early part of 1982. "The rise in unemployment in the industrial countries, for example, has affected the flow of private remittances from expatriate workers and on receipts from tourism", the IMF report said. It added further: "By far the most important factor worsening the balance of external services was a rise in international interest rates which roughly doubled from 1978 to 1981."

As a result of a weak demand in industrial countries for primary commodities, export earnings of many developing countries have been very severely affected. This has also been borne out by the statistics compiled by these two international financial institutions. The current account deficit of industrialised countries sharply declined from \$43,700 million in 1980 to only \$3,700 million in 1981. As against this, the current account deficit of the non-oil developing countries soared from the already high figure of \$87,000 million to \$100,000 million during the same period. While the balance of payments position of the rich countries improved because of the recessionary conditions, the same factor hit the developing countries if viewed from the opposite angle. Oil price increases also affected the external payments position of the developing countries. There was also another development. Prices of primary commodities such as cocoa, coffee, rubber, sugar, tea, tobacco, copper and tin declined during the year and the fall ranged from 10 per cent to 41 per cent.

While export earnings of these

developing countries are going down, the burden of debt servicing has increased because of higher interest rates and the western policy of undermining international financial institutions and reducing official assistance. So the developing countries are at the mercy of commercial banks, which has not only increased the debt servicing burden of the developing countries but has also created an international banking crisis because of these banks' rapacious over-lending to some countries like Mexico and Brazil. As a result of these factors, debt service payments of non-oil developing countries increased from 14 per cent of their exports of goods and services in 1975-77 to as high as 21 per cent in 1981. In other words, when they export \$100 worth of goods, \$21 have to be earmarked for debt servicing! The reserve accumulations of the developing countries have been almost wiped out. These were more than \$12,000 million in 1979. In 1981 they were a paltry \$1,500 million.

Because of the pressure from the United States and the United Kingdom, the share of private financial institutions in the debt of the developing countries increased from 23 per cent to 50 per cent in the decade of the seventies. The share of official sources during the decade fell from 57 per cent to 39 per cent. This is the result of the decline in official assistance from the OECD group of industrial countries. The share of soft loans from International Development Association (IDA), an affiliate of the World Bank, in the World Bank group lending has also been going down. It was 40 per cent in 1973. Today it is just 21 per cent. Correspondingly, the World Bank share has risen from 60 per cent to 79 per cent between 1973 and 1982. But the World Bank loans are only a shade better than commercial bank loans and they did not have the flexibility of commercial banks. While IDA loan is interest-free and a long-term loan of 50 years, the World Bank loans are at best medium term

loans with the rate of interest off nearly 12 per cent.

III

At a time when the current account deficit of developing countries was increasing sharply, the official development assistance from the OECD group of industrial countries declined by about 6 per cent to \$25,000 million in 1981. Expressed as per cent of GNP it amounted to 0.35 per cent as against the official UN target of 0.7 per cent (exactly half of the target). But the contribution of the United States was most depressing. At \$5,800 million the United States assistance accounted for only 0.20 per cent of its GNP in 1981 — the lowest among the industrialised countries.

While prices of commodities which the developing countries are importing continued to rise, those of commodities which they export continued to decline. For example, during 1981 prices of cocoa declined by more than 20 per cent, sugar more than 40 per cent, copper by about 20 per cent and rubber by about 23 per cent. It may be interesting to note that the share of developing countries in the total world trade of cocoa was 100 per cent, that of rubber 97 per cent, copper 64 per cent and sugar 45 per cent. But in those primary commodities in which rich countries have a stake, prices always maintain a high level. This pertains to foodgrains which the developing countries have neglected and, on the other hand, have become the chief suppliers of raw materials for industrial economies of the West at the cost of their bread basket. For instance, prices of rice increased by more than 11 per cent in 1981, maize 4.4 per cent and wheat 2.9 per cent. So even in agricultural commodities in which the United States is interested, prices are not permitted to fall.

The United States has also been vetoing the unconditional SDR allocations to member countries. During the three years ending 1981, \$12,000 million SDR was allocated to member countries according to the quotas. In simple words, this was a non-repayable overdraft. For instance, in 1981, the last year in which the SDR quotas were allocated, out of the allocation of nearly 4,000 million SDRs, the industrialised countries got the lion's share because of the overwhelming percentage of the shares which deter-

Debt burden of non-oil developing countries

	Billion US \$			Percentage Share		
	Official	Private	Total	Official	Private	Total
1973	48.3	48.5	96.8	49.9	50.1	100.0
1978	117.4	159.0	276.4	42.5	57.5	100.0
1981	175.6	261.4	437.0	40.2	59.8	100.0

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mine the quotas. SDR quotas also helped the developing countries. This is why the Managing Committee of the Board of Governors of the IMF had decided in June 1981 for a new SDR allocation from January 1, 1982, but this decision could not be implemented because of the potential US veto. The IMF report has described this diplomatically in these words: "The Managing Director stated that he was not in a position to make a proposal for SDR allocations in the fourth basic period, beginning January 1, 1982, that would command sufficiently broad support among the participants." The report says that a large number of members favoured further allocations but the required support for the allocation was lacking. Because of the veto power of the United States, the Board of Governors of the IMF was helpless. So the utmost they could do was to ask the Executive Committee 'to keep the matter under consideration' and persuade the United States to agree to a proposal for SDR allocation in the fourth basic period in accordance with the provisions of the Agreement. So the US even violates the articles of Agreement of IMF and the world cannot do anything about it.

IV

The United States has been trying to curtail the operations of both the World Bank and the IMF, and particularly the IDA. On the eve of the Toronto meeting, the World Bank President, Mr Clausen, expressed the view that the commercial banks would continue to make loans to the developing countries. But this view was contradicted by the Executive Vice President of the International Finance Corporation, Mr Hans Wuttke (an affiliate of the World Bank which specialises in financing projects through the private sectors of the developing nations). Mr Wuttke said that the developing countries would find it difficult to borrow money for the next two years not only because of the depressed state of the world economy but also because of the conclusion by many commercial banks "that they have reached their lending limits in certain countries". He also said that the poor borrowing countries not only face greater competition for funds, but also will have to pay interest premiums over the interest charged to

more advanced nations. In simple words, there will be two classes of borrowers for the private commercial banks of the West. The poor countries who would be charged higher interest rates and the rich countries who would be charged lower interest rates. So far as the private banking is concerned, not only the volume of borrowing for the poor world would be severely restricted, but the cost also would go up. So Mr Clausen's statement is factually incorrect.

The United States has been opposing the expansion of the capital base of the World Bank. It has also frozen the World Bank's "gearing ratio" which restricts it to one dollar in extending credit for each dollar of its capital. The previous President of the World Bank, Mr Robert McNamara, had proposed that the 'gearing ratio' should be raised to 2:1. So the bank's lending authority is doubled. The new President, Mr Clausen, has also supported it because he knows that the gearing ratio of many American commercial banks is as high as 30:1. After the recent lending spree to countries like Mexico that ratio might have gone up to 50:1.

The United States has also isolated itself in its opposition to an enlargement of the size of the IMF's lending pool. The French Finance Minister, Mr Jacques Delors, has proposed a 100 per cent increase in the IMF's lending pool of nearly \$66 billion to \$132 billion "as a minimum". Some industrial countries as well as most of the developing countries have demanded that the IMF's lending pool should be increased by 200 per cent. Even the rich countries have argued that the IMF's present resources may be adequate in ordinary circumstances but that they would not be adequate to deal with the impending international banking crisis if more countries like Mexico get into financial difficulty. The United States has suggested that the International Monetary Fund should establish a new \$25 billion reserve fund within the IMF that could be used to combat a "generalised world-wide financial crisis". In other words, it would like to keep aside \$25 billion to help American banks from collapsing but not a single dollar to help other countries to ad-

just their economies in the midst of the current economic squeeze.

Against the background of such fundamental differences between the United States and the rest of the members (both industrialised and developing) of the IMF and the World Bank, the time has arrived to have a UN General Assembly approach to the problems of the World Bank and the IMF. When small countries cannot do anything against the veto power of the super powers in the Security Council, they go to the General Assembly and get passed the resolutions which express the consensus of the world opinion. Similarly the plenary session of the Fund-Bank meeting at Toronto should pass four resolutions: (i) to have an energy affiliate to the World Bank by the middle of 1983; (ii) to change the gearing ratio of the World Bank to 5:1; (iii) to raise the IMF's lending pool by at least 100 per cent as demanded by the French Government, and (iv) to make the new SDR allocation by the end of 1982.

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COVER STORY

World Bank and IDA operations : 1981-82

By COMMERCE RESEARCH BUREAU

DURING the fiscal year 1981-82 lending and investment commitments by the International Bank for Reconstruction and Development, which is popularly known as the World Bank, and its affiliates, the International Development Association Corporation (IFC), aggregated \$13,628 million. These were higher by \$526 million or 4 per cent than the previous year's total of \$13,102 million.

Lending commitments approved by the World Bank rose by \$1,521 million or 17.3 per cent in 1981-82 to \$10,330 million from \$8,809 million in 1980-81. These were in support of 150 projects in forty-three countries.

During 1981-82, development credits approved by the IDA fell by \$796 million or 22.9 per cent to \$2,686 million against \$3,482 in 1980-81. A total of 97 projects for 42 countries were approved during the year.

The IFC approved 65 investments worth \$612 million to 31 countries during 1981-82, compared with 56 investments worth \$811 million in the preceding year. These were less by \$199 million or 24.6 per cent over those in the preceding year.

The World Bank and IDA together disbursed assistance worth \$8,393 million during 1981-82 up by \$1,452 million or 21 per cent compared with \$6,941 million in the previous year. Of this, 75 per cent

or \$6,326 million were disbursed by the World Bank and 25 per cent or \$2,067 million by the IDA.

The percentage of World Bank lending to the poorest countries (5.6 per cent of the total lending during the period 1976-77 to 1980-81) more than doubled in 1981-82. Ninety per cent of the total IDA commitments went to the poorest of the developing countries—these with per capita income between \$411 and \$730 per annum.

Regional distribution

Of the total assistance approved by the World Bank and the IDA during 1981-82, six countries of South Asia accounted for \$3,124 million or 24 per cent of the total assistance and ranked first followed by eighteen Latin American and the Caribbean countries (\$2,988 million or 23 per cent). Nine countries of East Asia and Pacific accounted for \$2,723 million or 20.9 per cent of the total World Bank group assistance and thirteen countries of Europe, West Asia and North Africa for \$2,379.1 million or 18.3 per cent. Other beneficiaries were sixteen countries of Western Africa (1,087 million or 8.4 per cent) and another sixteen countries of Eastern Africa (\$715 million or 5.4 per cent). In all, 78 member countries received assistance during 1981-82 (Table 1).

In percentage terms, the largest share of World Bank assistance went to India which received 12.2 per cent or \$1,265 million, followed by Indonesia 9.0 per cent or \$926 million, Brazil 7.0 per cent or \$722 million, Mexico 6.4 per cent or \$657 million, Turkey 6.3 per cent or \$648 million and Thailand 6.1 per cent or \$634 million. India with \$900 million was also the biggest borrower from the IDA in 1981-82. Next came Bangladesh (\$391 million), Pakistan (\$171 million), Uganda (\$109 million), Zaire (\$107 million), Burma (\$100 million) and others.

Purposewise break-up: Out of the total assistance approved by the World Bank Group during 1981-82, the largest share (23.7 per cent) went to projects in agriculture and rural development followed by energy (22.3 per cent), transportation (12.4 per cent), non-project (9.5 per cent), development finance companies (8.5 per cent and industry 7.4 per cent). The remaining 16.2 per cent of the approved assistance was for projects in the field of education, water supply and sewerage, telecommunications, urbanisation, small-scale enterprises and technical assistance (Table 2).

The share of energy projects in the total assistance approved during 1981-82 increased from 16.2 per cent in 1980-81 to 22.3 per cent in 1981-82. The assistance approved for transportation increased from 8.6 per cent in the previous year to 12.4 per cent in 1981-82 and that of non-project increased from 8.2 per cent to 9 per cent over the same period. Other sectors whose share in the total assistance in 1981-82 was higher as compared with that in the last year were telecommunications, small scale enterprises and technical assistance. In contrast, the share of agriculture and rural development declined substantially from 30.6 per cent in 1980-81 to 23.7 in 1981-82. The percentage share of the total assistance approved for projects in development finance companies, industry, education and water supply and sewerage also declined over the same period.

World Bank finances: The net income of the World Bank declined

Table 1 : Regionwise World Bank loans and IDA credits : 1981-82

Region	No. of countries	(\$ Million)			
		World Bank	IDA	Total	Per cent to total
South Asia	6	1,446.0	1,678.0	3,124.0	24.0
Latin America and the Caribbean	18	2,962.9	25.0	2,987.9	23.0
East Asia and Pacific ..	9	2,641.4	82.0	2,723.4	20.9
Europe, Middle East and North Africa	13	2,317.6	61.5	2,379.1	18.3
Western Africa	16	853.8	233.1	1,086.9	8.4
Eastern Africa	16	107.9	606.7	714.6	5.4
Total	78	10,329.6	2,686.3	13,015.9	100.0

COVER STORY

to \$598 million in 1981-82, a decrease of 2 per cent over \$610 million in 1980-81.

During the financial year 1981-82, the World Bank borrowed an amount of \$8,521 million. This included an amount of \$304 million for which the agreements to borrow were scheduled to be signed in early June 1982. On the \$8,521 million borrowed in 1981-82, \$1,500 million was accounted for by public offerings in the United States market from which the World Bank had been absent since July 1977. During 1981-82, the World Bank also executed in markets outside the US, its first US dollar/Swiss franc-linked bond issue of \$100 million. The year 1981-82 was also marked by the World Bank's first Eurokrone bond issue of \$17.2 million. Of the seventy-five borrowing operations that the World Bank conducted during 1981-82, 58 were public issues or private placements throughout the world and accounted for \$6,535.5 million or 77 per cent of total amount borrowed. The other 17 issues totalling \$1,966.9 million, or 23 per cent of the funds raised, were placed with official sources, namely member countries of the World Bank, central banks and government institutions.

As on June 30, 1982, the subscribed capital of the World Bank stood at \$43,165 million (SDRs 39,519 million). It rose during the year by SDRs 7,697 million. Of this, SDR 6,908 million was the result of subscriptions authorised by the general capital increase approved in January 1980. The authorised capital was SDRs 71,650 million or \$78,259 million.

Developing countries: Many developing countries in 1981 were not able to sustain their economic expansion of the preceding year. The real growth in the aggregate gross national product (GNP) of the developing countries suffered a setback in 1981, dropping to 2.2 per cent from the 5.0 per cent level in 1980. For a second consecutive year, the gross domestic product (GDP) of the industrial countries experienced markedly slow real growth—from 1.4 per cent in 1980 to 1.2 per cent in 1981.

Major changes took place in the pattern of global payments during 1981. In 1981, the deficit of the oil-importing developing countries particularly middle-income ones—continued to rise, but industrial coun-

tries experienced a significant improvement as they moved to near balance. Factors contributing to changes in 1981 in the current account balances included: (a) the reduced oil and non-oil imports of the industrial countries; (b) a relatively smaller increase (in both real and nominal terms) in oil prices; (c) the decline in the prices of primary commodities; and (d) significantly higher interest payments. The combined effect of these factors was adverse for the developing countries.

Net disbursement of the Official Development Assistance (ODA) from member countries of the Development Assistance Committee (DAC) of the Organisation for Economic Co-operation and Development (OECD) to the developing countries decreased to \$25,500 million in 1981 from \$27,200 million in 1980. This represents a nominal decrease of 6 per cent from the 1980 level, reaching 0.35 per cent of their aggregate GNP.

Net disbursements of ODA by the member countries of the Organisation of Petroleum Exporting Countries (OPEC) in 1980 increased to \$7,000 million from \$6,100 million in 1979. The 1980 figure was 1.36 per cent of their aggregate GNP. The high income oil exporters (Iran, Kuwait, Libya, Qatar, Saudi Arabia and the UAE) are the main donors;

in fact, some OPEC members are net recipients of ODA.

In the face of a second consecutive year of lacklustre growth in the industrial countries, Many developing countries in 1981 were not able to sustain their economic expansion of the preceding year. Although some countries continued to grow rapidly, exporters of manufactures and those able to make rapid adjustments to the current economic climate. The overall economic performance of the developing countries was poor.

Amid the uncertainty of the current economic environment, the dangers of further recession and decline seem serious; there are, however, reasons also for optimism. The resilience of many developing countries despite the depressed external environment has been impressive. According to the World Bank Annual Report for 1982. The industrial countries realise that they must control inflation if they are to return to a stronger path of growth. There appears to be an increased recognition by them that national economic prosperity is linked to liberal trade and unimpeded capital flows, though protectionism continues to threaten in the face of record levels of unemployment.

Table 2 : Purposewise distribution of World Bank loans and IDA credits : 1981-82

(\$ Million)					
Purpose	World Bank	IDA	Total	Per cent to total	
Agriculture and Rural Development ..	2,180.2	898.2	3,078.4	23.7	
Energy	2,153.5	744.0	2,897.5	22.3	
(a) Oil, gas and coal	720.6	45.7	766.3	5.9	
(b) Power	1,432.9	698.3	2,131.2	16.4	
Transportation	1,379.5	234.7	1,614.2	12.4	
Non-project	990.7	250.0	1,240.7	9.5	
Development Finance Companies	957.8	135.5	1,093.3	8.5	
Industry	910.4	49.0	959.4	7.4	
Education	428.4	98.0	526.4	4.1	
Water Supply and Sewerage	400.2	41.0	441.2	3.4	
Telecommunications	338.3	57.5	395.8	3.0	
Urbanization	324.8	50.0	374.8	2.9	
Small-scale Enterprises	228.0	57.7	285.7	2.2	
Technical Assistance	24.8	47.7	72.5	0.6	
Total	10,329.6	2,686.3	13,015.9	100.0	

COVER STORY

World Bank Group assistance to India

By COMMERCE RESEARCH BUREAU

DURING the fiscal year ending June 30, 1982, lending commitments by the World Bank and credit approvals by its affiliate, the International Development Association (IDA), to India amounted to \$2,165 million (Table 1), up \$454 million (26.5 per cent) from \$1,711 million in the year 1980-81. During 1981-82 the relative roles of the world Bank and the IDA considerably changed. While the share of the IDA in the total World Bank group's assistance to India declined from 74.9 per cent in the previous year to 41.6 per cent in 1981-82, that of the World Bank increased from 25.1 per cent to 58.4 per cent during this period. IDA's share in the total World Group's assistance to India in 1979-80 was as much as 92 per cent.

India's share in the World Bank group's total lending increased from 13.9 per cent in 1980-81 to 16.6 per cent in 1981-82. Now that the People's Republic of China has joined the World Bank group, India's prospects for aid from the group are likely to be adversely affected in the future while the World Bank's absolute commitment to India increased by 194 per cent to \$1,265 million in 1981-82 as against \$430 million in 1980-81, the IDA's sanctions declined by \$381 million (29.7 per cent) from \$1,281 million in 1980-81 to \$900 million in 1981-82. The decrease in funds available to IDA during 1981-82 occasioned a change in the blend of the World Bank and IDA funds towards greater reliance on World Bank loans; this change substantially increased the average cost of borrowing to India and would add to the country's debt-service burden. India continued to be the single largest beneficiary among the recipients of aid from the World Bank group. Next came Indonesia and Brazil which received \$926 million (7.1 per cent) and \$722 million (5.5 per cent) respectively.

During the year 1981-82 per capita assistance to India by the World Bank group increased to \$3.2 from the previous year's level of \$2.6. India also retained its last year's fourth position in terms of per capita

assistance among the countries of South Asia (Table 2).

The World Bank loans and IDA credits to India helped meet a part of the expenses of 12 projects during 1981-82 of which five were for agriculture and rural development, three for power, two for industry and one each in the fields of development finance companies and urbanisation. During the year, two sectors, namely power and agriculture industry rural development together accounted for more than three-fourths of the total assistance received by India: 46.4 per cent for power and 31.7 per cent for agriculture and rural development (Table 3).

Up to June 30, 1982, the cumulative assistance approved to India by

the World Bank group aggregated \$14,931.6 million or 14.2 per cent of the total approvals by the group (Table 1). While India's percentage share in IDA's cumulative assistance up to June 30, 1982 declined marginally to 39.1 per cent from 39.8 per cent at the end of June 30, 1981, its share in the World Bank's cumulative assistance up to June 30, 1982 increased to 5.7 per cent from that of 4.7 per cent at the end of June 30, 1981.

At the Aid-India Consortium meeting held in Paris in June 1982, the consortium pledged \$3,660 million assistance to India for the year 1982-83 which is higher than \$3,450 million pledged for the last year. In view of the frequent fluctuations in

Table 1: Lending by World Bank and IDA to India

	Approved during 1981-82			Approved up to June 30, 1982		
	Total \$ Million	India's Share		Total \$ Million	India's Share	
		\$ Million	Per cent		Million \$	Per cent
World Bank	10,329.6	1,264.8	12.2	78,479.9	4,465.4	5.7
IDA	2,686.3	900.0	33.5	26,738.2	10,466.2	39.1
Total	13,015.9	2,164.8	16.6	1,05,218.1	14,931.6	14.2

Table 2: World Bank Group lending to South Asian Countries 1981-82

	Total lending (\$ Million)		Per capita lending (\$)	
Sri Lanka	128.7	8.8	4.4	3.8
Bangladesh	391.0	4.4	3.8	3.2
Pakistan	309.5	3.8	3.2	2.9
India	2,164.8	3.2	2.9	2.0
Burma	100.0	2.9	2.0	
Nepal	30.0	2.0		

Table 3: Purposewise World Bank loans and IDA credits to India: 1981-82

	World Bank	IDA	Total	Per cent to total
Power	604.5	400.0	1,004.5	46.4
Agriculture and rural development	210.3	475.0	685.3	31.7
Industry	300.0	—	300.0	13.9
Development Finance Companies	150.0	—	150.0	6.9
Urbanisation	—	25.0	25.0	1.1
Total	1,264.8	900.0	2,164.8	100.0

COVER STORY

the value of the US dollar, the consortium announced the aid quantum in terms of International Monetary Fund's Special Drawing Rights (SDRs). Thus quantified, the aid amounts to SDRs 3,300 million as against SDRs 2,820 million last year.

From the total assistance of \$3,660 million pledged to India, about \$2,200 million would be extended by the World Bank group. This amounts to 60 per cent of the consortium's total assistance during 1982-83 as compared to 58 per cent in 1981-82.

Projectwise details of the World Bank Group's assistance to India during 1981-82 are given below:

Power

(a) \$400 million IDA credit for the construction of three 500-mw generating units and 1,100 kilometres of associated transmission lines in Madhya Pradesh. It would provide the least-cost solution for meeting a part of the projected base-load demand for power in the country's western region. Cofinancing (\$150 million) is being provided by the KfW. Total project cost: \$1,387 million.

(b) \$304.5 million World Bank loan for the expansion and improvement of rural electrification in about fourteen states. Equipment and materials for about 3,500 rural-electrification schemes would be financed, as would about 100 distribution-improvement schemes, and additional buildings and equipment for a rural-electrification training institute. Total project cost: \$795.3 million.

(c) \$300 million World Bank loan for installation of three 500 mw generating units, together with ancillary equipment and related facilities at the Ramagundam thermal power station in Andhra Pradesh. About 1,400 kilometres of associated 400 kv transmission lines would be constructed. It would help in meeting a part of the base-load demand for power in the southern region. Cofinancing is being provided by the KfW (\$150 million) and the OPEC Special Fund (\$30 million). Total project cost: \$1,567.5 million.

Agriculture and rural development

(a) \$190 million World Bank and \$160 million IDA credit for fourth Agricultural Refinance and Development Corporation credit project and fourth Agricultural Refinance and

Table 4: World Bank group assistance to India
(Approved till June 30, 1982.)

		(\$ million)	
Year	Purpose		Amount
A. Transportation			
(a) Railways			
1949	Railway project	(IBRD)	34.00
1957	Railway project	(IBRD)	24.00
1957	Railway project	(IBRD)	19.11
1957	Railway project	(IBRD)	11.20
1957	Railway project	(IBRD)	35.70
1958	Railway project	(IBRD)	85.00
1959	Railway project	(IBRD)	50.00
1960	Railway project	(IBRD)	70.00
1961	Railway project	(IBRD)	50.00
1963	Railway improvement	(IDA)	67.50
1964	Railway improvement	(IDA)	62.00
1966	IX railway project	(IDA)	68.00
1969	X railway project	(IDA)	55.00
1972	XI railway project	(IDA)	75.00
1973	XII railway project	(IDA)	80.00
1976	XIII railway project	(IDA)	110.00
1979	XIV railway project	(IDA)	190.00
Sub-total (a)			1,086.51
of which			
IBRD			379.01
IDA			707.50
(b) Roads			
1961	Highway construction and improvement	(IDA)	60.00
1980	Bihar rural roads projects	(IDA)	35.00
Sub-total (b)			95.00
(c) Ports and shipping			
1958	Madras Port Trust	(IBRD)	14.00
1958	Calcutta Port Trust	(IBRD)	29.00
1961	Calcutta Port Trust	(IBRD)	21.00
1962	Bombay Port Trust	(IDA)	18.00
1972	Shipping project	(IDA)	83.00
Sub-total (c)			165.00
of which			
IBRD			64.00
IDA			101.00
(d) Airtransport			
1957	Air India	(IBRD)	5.60
Total (A)			1,352.11
of which			
IBRD			448.61
IDA			903.50
B. Telecommunication			
1962	Telecommunication	(IDA)	42.00
1964	II Telecommunication project	(IDA)	33.00
1969	III Telecommunication project	(IDA)	35.50
1969	Telecommunication project	(IBRD)	27.50
1971	IV Telecommunication project	(IDA)	70.00
1973	V Telecommunication project	(IDA)	80.00
1977	VI Telecommunication project	(IBRD)	80.00
1978	VII Telecommunication project	(IBRD)	120.00
1981	VIII Telecommunication project	(IDA)	314.00
Total (B)			802.00
of which			
IBRD			227.50
IDA			574.50

(Contd.)

COVER STORY

Development Corporation programme respectively. It would help the country to increase agricultural production and strengthen agricultural credit institutions. Funds would be provided through the Agricultural Refinance and Development Corporation for relending to farmers for investments in irrigation, land development, plantations and horticulture, livestock, and fisheries. About 60 per cent of the credit funds would be directed to small farmers. Total project cost: \$2,086.2 million.

(b) \$20.3 million World Bank and \$60 million IDA credit for Kallada irrigation and tree crop development project. This project would help increase the incomes of small landholders in Kerala through modernisation of foodgrain and tree-crop cultivation. Reliable supplies of water would be provided for hill-side garden and paddy lands, as would a range of agricultural support services. Total project cost: \$160.6 million.

(c) \$220 million IDA credit for Madhya Pradesh major irrigation project. The project, including construction work on six dams, expansion and remodelling of 217 kilometres of canal systems, and the construction or improvement of 672 kilometres of rural roads, would assist the ongoing development of two major irrigation schemes in Madhya Pradesh and help to increase agricultural production and raise the standard of living of local farmers. Total project cost: \$439.2 million.

(d) \$29 million IDA credit for West Bengal social forestry project. Some 93,000 hectares of plantations would be established on wastelands throughout the State of West Bengal to help increase supplies of fuelwood in rural areas. Poles, bamboo, fruits, oilseeds, and other forest products would also be provided; energy-efficient stoves would be introduced; and social-forestry wing in the State Forestry Department would be established. Total project cost: \$43.5 million.

(e) \$6 million IDA credit for Andhra Pradesh Agricultural Extension

Table 4 (Contd)

(\$ million)

Year	Purpose		Amount
C. Power			
1950	DVC project	(IBRD)	18.50
1953	II DVC project	(IBRD)	19.50
1954	Tata power companies	(IBRD)	16.20
1957	Tata power companies	(IBRD)	9.80
1958	III DVC project	(IBRD)	25.00
1959	Koyna project	(IBRD)	25.00
1962	Durgapur power extension	(IDA)	18.50
1962	II Koyna project	(IDA)	17.50
1963	Kothagudem project	(IDA)	20.00
1965	Power transmission	(IBRD)	70.00
1965	Kothagudem phase II	(IBRD)	14.00
1971	II power transmission project	(IDA)	75.00
1973	III power transmission project	(IDA)	85.00
1976	Power development	(IDA)	150.00
1976	Rural electrification	(IDA)	57.00
1977	Singrauli project	(IDA)	150.00
1978	Korba thermal power project	(IDA)	200.00
1978	Tata power companies	(IBRD)	105.00
1979	Rural electrification project	(IDA)	175.00
1979	Ramgundam thermal power project	(IDA)	200.00
1979	Ramgundam thermal Power project	(IDA)	50.00
1980	Singrauli power generating station stage II	(IDA)	300.00
1980	Farakka thermal power station stage I	(IDA)	225.00
1980	Farakka thermal power station stage I	(IBRD)	25.00
1981	Second Ramgundam thermal power project	(IBRD)	300.00
1981	Second korba thermal power project	(IDA)	400.00
1982	Third Rural electrification project	(IBRD)	304.50
Total (C)			3,055.56
of which			
IBRD			982.56
IDA			2,073.00
D. Urban development and human resources			
1973	Bombay water supply and sewerage projects	(IDA)	55.00
1973	Calcutta urban development project	(IDA)	35.00
1973	Population project	(IDA)	21.20
1973	Education project	(IDA)	12.00
1976	Water supply and sewerage project (Uttar Pradesh)	(IDA)	40.00
1977	Bombay urban transport project	(IBRD)	25.00
1977	Madras urban development project	(IDA)	24.00
1978	Second Calcutta urban development project	(IDA)	87.00
1979	Bombay water supply project	(IDA)	196.00
1979	Water supply in Maharashtra	(IDA)	48.00
1979	Water supply and sewerage in Punjab	(IDA)	38.00
1980	Transport services in Calcutta	(IDA)	56.00
1980	Water supply in Rajasthan	(IDA)	80.00
1980	Second population project	(IDA)	46.00
1980	Basic health and Nutrition services	(IDA)	32.00
1980	Second Madras urban development project	(IDA)	42.00
1981	Kanpur urban development project	(IDA)	25.00
Total (D)			862.00
of which			
IBRD			25.00
IDA			837.00
E. Industry and mining			
(a) Coal			
1961	Coal project GOI	(IBRD)	35.00
1961	IISCO—Coal mines	(IBRD)	19.00
Sub-total (a)			54.00
of which			
IBRD			54.00
(b) Oil and natural gas			
1977	Bombay High and North Bassein offshore development	(IBRD)	150.00
1980	Second Bombay High offshore development	(IBRD)	400.00
1982	Refineries rationalisation project	(IBRD)	200.00
Sub-total (b)			750.00

COVER STORY

Table 4 (Contd)

(\$ million)

Year	Purpose	Amount
(c) Steel		
1952	Steel—IISCO (IBRD)	31.50
1956	Steel—IISCO (IBRD)	30.00
1956	Steel—IISCO (IBRD)	75.00
1957	Steel—IISCO (IBRD)	32.50
1966	Steel—IISCO (IBRD)	30.00
Sub-total (c)		189.00
of which IBRD		189.00
(d) Industrial Credit and Investment Corporation of India		
1955	ICICI (IBRD)	10.00
1955	ICICI (IBRD)	10.00
1960	ICICI (IBRD)	20.00
1962	ICICI (IBRD)	20.00
1963	ICICI (IBRD)	30.00
1965	ICICI (IBRD)	50.00
1967	ICICI (IBRD)	25.00
1970	ICICI (IBRD)	40.00
1971	ICICI (IBRD)	60.00
1972	ICICI (IBRD)	70.00
1975	ICICI (IBRD)	100.00
1978	ICICI (IBRD)	80.00
1980	ICICI (IBRD)	100.00
1981	ICICI (IBRD)	150.00
Sub-total (d)		765.00
of which IBRD		765.00
(e) Industrial Development Bank of India		
1973	IDBI (IDA)	25.00
1976	IDBI (IBRD)	40.00
1978	IDBI (IBRD)	25.00
Sub-total (e)		90.00
of which IBRD		65.00
IDA		25.00
(f) Industrial imports		
1964	Industrial imports projects (IDA)	90.00
1965	II Industrial imports project (IDA)	100.00
1966	III Industrial imports projects (IDA)	150.00
1966	IV Industrial imports project (IDA)	65.00
1969	V Industrial imports project (IDA)	125.00
1970	VI Industrial imports project (IDA)	75.00
1972	VII Industrial imports project (IDA)	75.00
1973	VIII Industrial imports project (IDA)	100.00
1974	IX Industrial imports project (IDA)	150.00
1975	X Industrial imports project (IDA)	200.00
1976	XI Industrial imports project (IDA)	200.00
Sub-total (f)		1,330.00
of which IDA		1,330.00
(g) Fertiliser		
1971	FACT—Cochin phase II (IDA)	20.00
1972	FCI—Gorakhpur (IDA)	10.00
1973	FCI—Nangal (IDA)	58.00
1974	FCI—Trombay expansion (IDA)	50.00
1974	FCI—Sindri modernisation (IDA)	91.00
1975	IFFCO—Phulpur (IBRD)	109.00
1976	Fertiliser production (IDA)	105.00
1979	Thal fertiliser project (IBRD)	250.00
1981	Hazira fertiliser projectfi (IDA)	400.00
Sub-total (g)		1,093.00
of which IBRD		359.00
IDA		734.00
(h) News print		
1981	Tamil Nadu Newsprint project (IBRD)	100.00
Sub-total (h)		100.00
of which IBRD		100.00
Total (e)		4,371.50
of which IBRD		2,282.50
IDA		2,089.00

(Contd.)

sion Project. Under the project, agricultural extension services would be reorganised and strengthened, incorporating the training and visit system of extension, to benefit about 5.5 million farm families in twenty-two districts in Madhya Pradesh. Total project cost: \$9.7 million.

Industry

(a) \$200 million World Bank loan for refineries rationalisation project. This project would help remedy the imbalance between domestic demand for, and supply of, petroleum products and to improve energy efficiency in the sector. Facilities would be installed to convert fuel oil into higher value products; facilities for distribution and pollution control would also be built. Total project cost: \$1,085.7 million.

(b) \$100 million World Bank loan for Tamil Nadu newsprint project. Under this project, a dual-purpose pulp and paper mill would be built. It would have the capacity to produce 1,00,000 tonnes of newsprint and 80,000 tonnes of printing and writing paper annually. Total project cost: \$237.5 million.

Development finance companies

\$150 million World Bank loan as fourteenth loan to the Industrial Credit and Investment Corporation of India (ICICI). Under this project, funds would be provided to help cover the foreign exchange costs of industrial projects carried out by productive enterprises, and the ICICI would be assisted in its efforts to diversify its sources of foreign exchange and to promote developmental activities.

Urbanisation

\$25 million IDA credit to Kanpur Urban Development Project. The project, including the financing of a programme of investments to provide basic services and residential and commercial plots to low-income beneficiaries, would support the reorientation of shelter and infrastructure investments in Kanpur to make them more responsive to the pressing needs of the city's poor people. Total project cost: \$51.7 million.

COVER STORY

Table 4 (Contd)

\$ (Million)

Year	Purpose		Amount
F. Agriculture and irrigation			
1949	Agriculture machinery project	(IBRD)	10.00
1961	Punjab flood protection and drainage	(IDA)	10.00
1961	Tubewell irrigation project	(IDA)	6.00
1961	Shetrunji irrigation project	(IDA)	4.50
1961	Salandi irrigation project	(IDA)	8.00
1962	Sone irrigation project	(IDA)	15.00
1962	Purnea irrigation project	(IDA)	13.00
1966	Beas agricultural equipment project	(IDA)	23.00
1969	Tari seeds project	(IBRD)	13.00
1970	Kadana irrigation project	(IDA)	35.00
1970	Gujarat agricultural credit	(IDA)	35.00
1970	Punjab agricultural credit	(IDA)	27.50
1970	Haryana agricultural project	(IDA)	25.00
1971	Andhra Pradesh agricultural credit	(IDA)	24.40
1971	Tamil Nadu agricultural project	(IDA)	35.00
1971	Wheat storage project	(IDA)	5.00
1971	Pochanpad irrigation project	(IDA)	39.00
1972	Agricultural aviation project	(IDA)	6.00
1972	Mysore agricultural credit	(IDA)	40.00
1972	Maharashtra agricultural credit	(IDA)	30.00
1973	Bihar agricultural marketing	(IDA)	14.00
1973	Mysore agricultural marketing	(IDA)	8.00
1973	Madhya Pradesh agricultural credit	(IDA)	33.00
1973	Uttar Pradesh agricultural credit	(IDA)	38.00
1973	Bihar agricultural credit	(IDA)	32.00
1974	Himachal Pradesh apple project	(IDA)	13.00
1974	Karnataka dairy project	(IDA)	30.00
1974	Chambal irrigation project	(IBRD)	52.00
1974	Rajasthan Canal command area	(IDA)	83.00
1974	Rajasthan dairy development project	(IDA)	27.70
1974	Madhya Pradesh dairy development project	(IDA)	16.40
1974	Drought-prone area programme	(IDA)	35.00
1974	Godavari river barrage	(IDA)	45.00
1975	Agricultural Refinance Corporation	(IDA)	75.00
1975	West Bengal agricultural development project	(IDA)	34.00
1975	Chambal command area (M.P.)	(IDA)	24.00
1976	Seed production project	(IBRD)	25.00
1976	Cotton development project	(IDA)	18.00
1976	Madhya Pradesh wood processing project	(IDA)	4.00
1976	Andhra Pradesh command area development	(IBRD)	45.00
1977	Gujarat fisheries	(IBRD)	14.00
1977	Gujarat fisheries	(IDA)	4.00
1977	Kerala agricultural development	(IDA)	30.00
1977	Orissa agricultural development	(IDA)	20.00
1977	West Bengal agricultural extension and research	(IDA)	12.00
1977	Madhya Pradesh agricultural extension and research	(IDA)	10.00
1977	II Agricultural Refinance and Development Corporation		
1977	Periyar-Vaigai irrigation (Tamil Nadu)	(IDA)	200.00
1977	Assam agricultural development	(IDA)	23.00
1978	Maharashtra irrigation	(IDA)	8.00
1978	Rajasthan Agricultural Research and Extension	(IDA)	70.00
1978	Orissa irrigation	(IDA)	13.00
1978	Foodgrain storage project	(IDA)	58.00
1978	Bihar Agricultural Extension and Research	(IDA)	107.00
1978	Karnataka irrigation	(IDA)	8.00
1978	Jammu & Kashmir horticulture, fruit processing and marketing	(IDA)	126.00
1978	Gujarat irrigation	(IDA)	14.00
1978	Andhra Pradesh Fisheries	(IDA)	85.00
1978	Second National Seed Project	(IDA)	17.50
1978	National Dairy Project	(IDA)	16.00
1978	Punjab irrigation	(IDA)	150.00
1979	Haryana irrigation	(IDA)	129.00
1979	Foodgrain storage project	(IDA)	111.00
1979	Agricultural Research project	(IDA)	30.00
1979	Agricultural Extension project	(IDA)	27.00
1979	Uttar Pradesh forestry project	(IDA)	25.00
1980	Agricultural Refinance and Development Corporation	(IDA)	23.00
1980	Second Irrigation Project in Maharashtra	(IDA)	250.00
1980	Second Irrigation Project in Gujarat	(IDA)	210.00
1980	Silk industry in Karnataka	(IDA)	175.00
1980	Forestry in Gujarat	(IDA)	54.00
1980	Cashew production in Kerala, Karnataka, Andhra Pradesh and Orissa	(IDA)	37.00
		(IDA)	22.00

COVER STORY

Table 4 (Contd)

(\$ million)

Year	Purpose		Amount
1980	Crop production in West Bengal, Bihar, Orissa, Madhya Pradesh and Uttar Pradesh	(IDA)	28.00
1980	Irrigation project in Uttar Pradesh	(IDA)	18.00
1980	Agricultural Extension Services in Kerala	(IDA)	10.00
1980	Kandi Watershed and Area Development	(IBRD)	30.00
1980	Mahanadi Barrages project	(IDA)	83.00
1981	Madhya Pradesh medium irrigation project	(IDA)	140.00
1981	Karnataka Tank Irrigation Project	(IDA)	54.00
1981	Maharashtra Agricultural Extension Project	(IDA)	23.00
1981	Tamil Nadu Agricultural Extension Project	(IDA)	28.00
1981	Madhya Pradesh Agricultural Extension Project	(IDA)	37.00
1981	Second National Cooperative Development Corporation	(IDA)	125.00
1981	Madhya Pradesh major irrigation project	(IDA)	220.00
1981	West Bengal social forestry project	(IDA)	29.00
1982	Fourth Agricultural Refinance and Development Corporation Credit Project	(IBRD)	190.00
1982	Kallada Irrigation and Tree Crop Development Project	(IBRD)	20.30
1982	Fourth Agricultural Refinance and Development Corporation Credit Programme	(IDA)	160.00
1982	Andhra Pradesh Agricultural Extension Project	(IDA)	6.00
1982	Kaliada Irrigation and tree Crop. Development Project	(IDA)	60.00
Total (F)			4,488.30
of which			
IBRD			499.30
IDA			3,989.00
Grand total (World Bank Group)			14,931.61
of which			
IBRD			4,465.41
IDA			10,466.20

MUKAND IRON & STEEL WORKS LIMITED

Central Notice Under Rule 4A(I) of the Monopolies and Restrictive Trade Practices Rules, 1970

It is hereby notified for the information of the public that MUKAND IRON & STEEL WORKS LIMITED, Lal Bahadur Shastri Marg, Kurla, Bombay -400 070 proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a Notice under sub-section (I) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion by modernisation of existing manufacturing facilities. Brief particulars of the proposal are as under:

- (i) Name(s) of person(s)/body corporate owning the undertaking : MUKAND IRON & STEEL WORKS LIMITED
- (ii) Capital structure of the applicant undertaking :
- | | | | |
|--------------------|----|----|------------------|
| Authorised Capital | .. | .. | Rs. 12,50,00,000 |
| Subscribed Capital | .. | .. | Rs. 8,07,43,637 |
- (iii) Details of the proposed substantial expansion :
- (a) Names of the new goods to be produced, supplied, controlled or distributed or of new services to be rendered : Not applicable.
- (b) In the case of substantial expansion of existing activities :
- (i) Name of goods : Steel Billets
- (ii) Capacity before expansion : 1,35,000 tonnes per annum
- (iii) Expansion proposed : 1,35,000 tonnes per annum
- (iv) Location of the project for substantial expansion : Company's plant at Kalwe in the State of Maharashtra
- (v) Brief outline of the cost of the project, the scheme and sources of finance : The cost of the project is approximately Rs. 9 crores. The project will be financed partly by borrowings from Financial Institutions and partly from internal accruals

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposed and indicating the nature of his interest therein.

P. C. CHHAJLANI
Secretary

Dated this 30th day of August 1982.

BOOKS & IDEAS

A focus on the process of managing diversification

Managing Diversification — The General Management Process

By Ranjan Das

Macmillan India Ltd., New Delhi, 1981;
Pages ix + 145; Price Rs 60.

Among the most challenging tasks confronted by large-scale industrial organisations, diversification, as the author says, has been one of the most complicated and rewarding. In fact, diversification in the context of growing organisations has become almost a way of life leading to deviations from the past in terms of organisation, technology, market and management methods and approaches. The author has sought to focus on real life organisations highlighting the process of management of diversification, especially in large organisations.

The principal accent in the book, as the author says, is on describing the strategic process of managing diversification in a dynamic context. In fact, the author's research objective indicated in his preface brings his study very much in line with the works of Alfred D. Chandler (*Strategy and Structure*, MIT, Cambridge, 1962) and the subsequent series of research studies undertaken by the Harvard Business School, some of which have already appeared in a published form like Derek F. Channon, (*Strategy and Structure of British Enterprise*, Macmillan, London, 1973), Richard P. Rumelt (*Strategy, Structure and Economic Performance*, Division of Research, Graduate School of Business Administration, Harvard University, Boston, 1974), Gareth Pooley Dyas (*The Strategy and Structure of French Industrial Enterprise*), Robert J. Pavan (*The Strategy and Structure of Italian Enterprise*), and Heinz T. Thanheiser (*Strategy and Structure of German Industrial Enterprise*, unpublished doctoral dissertations, Harvard Business School, 1972). The strategy-structure interface in the context of growth and diversification of large organisations has come to be spotlighted since the publication of Professor Chandler's epoch-making study.

Professor H. Igor Ansoff also brought to light several operational

characteristics of the large organisation as it faces the problems of growth, diversification and technology revolutions, particularly his book on *Strategic Management* (Macmillan, London, 1979) has thrown considerable light on the present status and future trends in the behaviour of large organisations figuring as environment servicing organisations. In fact, Professor Ansoff anticipates the growth behaviour of large organisations in a manner which will have far-reaching impact particularly his underlining that the distinction between commercial and non-commercial organisations becomes thinner and thinner as it continues to serve the turbulent external environment will have ramifications much of which are yet not clearly seen. This book by Ranjan Das highlights an area which holds considerable interest to students of organisational strategies pursued, especially in the context of growth and diversification. The book has four chapters giving an overview, the general management process, case studies and research methodology.

The thematic outline given in the study will be of considerable interest for future researchers, especially as to how diversification as a mode of strategic adaptation responsive to shifts in environment takes shape posing both problems and solutions thereto. The author's findings underline key characteristics of the process of developing social relationships with various interest groups especially in a regulatory environment. In a tabular form the author presents ideas that will be found interesting and instructive. The problems faced, the preparatory steps for facing these problems and their solution offer interesting sidelights to the main issue.

The preparedness of the organisation to face the challenges has been spelt in different ways with particular reference to strengthening its growth strategies and the integration of existing and new businesses that diversification seeks to bring into its fold. The methods of measuring the task of consolidation achieved with reference to specific criteria will be found useful. The criteria mentioned relate to capabilities for managing multi-industry

firm, development of expertise in general managers, commitment and ability to deal with the new tasks and challenges, definition of the organisational context, control and information system, sensitivity of the processes of resource allocation and integration of diverse business cultures.

In the context of acquiring new competence by diversifying firms, the author underlines that two basic competences are required to be developed specifically. One, the functional competence for managing new projects as they take shape and maintaining ongoing operations; and two, the general management competence to manage the new business. The author lays stress on several steps directly involved in acquiring competence for a new business. Some of them are:

(a) Determination of concept of business and long- and short-term plans in respect of individual new venture projects;

(b) Assessment of competences required (both functional and general management) to achieve planned effectiveness in operations;

(c) Assessment of existing skills which are transferable from present businesses (i) directly, and (ii) after proper training;

(d) Identifying skills that are to be acquired from outside;

(e) Finding alternative ways of acquiring skills and analysing constraints and assumptions underlying each mode;

(f) Analysis of financial, commercial, environmental and organisational implications of each alternative;

(g) Determination of how each alternative is going to contribute to the learning process and building capabilities within the organisation;

(h) Determining the types of checks and controls that general management has to develop in respect of the alternative chosen during the transition period (i.e., during the period of learning as well as diffusion of new knowledge throughout the organisation).

The author is practical in suggesting that the process of acquiring new competence remains subject to three essential factors. First, the extent of environmental pressures operating in the organisation. Secondly, credibility of the organisation to continue with the new business. Thirdly, orientations of the general managers who have the responsibility to acquire new competences.

The process models presented in the study underline the general management

process of managing diversification during a transitional phase. The case studies presented provide the core matter for analysis on the basis of which conceptualisation of the process of managing diversification has been adopted. The research methodology with reference to formulation of the problem, analysis of the data bearing on the problem, integrating different information and data collected

for fitting into the framework and drawing lessons therefrom are matter of fact, precise and penetrating. The checklist for a comprehensive feasibility study, considerations behind choices of projects and alternative possible strategies that organisations face are expected to help future researchers in this area.

P. Chattopadhyay

In quest of promoting bio-energy

Bio-Energy Re-News

Editor Dr S. Paul

India House Developments, 134-G,
Palam Colony, New Delhi 110 045,

Annual subscription: Individual Rs 75;
Institutions; Rs 125.

Of late considerable emphasis is being laid on development of renewable sources of energy such as solar and bio-energy both in this country and abroad. The immediate reason has been the sharp rise in oil prices and the realisation that oil reserves would not last for more than a few decades. This is the global picture, however, and, as far as our country is concerned, it is poor in oil resources and coal resources could not be considered to be bountiful. Harnessing of solar

energy and bio-energy therefore is crucial for us and it is this realisation which has led the Government of India to set up a Commission for Additional Sources of Energy.

This bi-monthly, which, the editor Dr S. Paul, who took keen interest in rural development and now devotes himself to promotion of bio-energy, hopes to convert it into a monthly journal soon, will, it is claimed, assiduously explore and highlight simple, low key and easily replicable technologies that would fit into the socio-economic milieu of the developing societies. As the name of the journal suggests, it will essentially discuss the bio-mass and bio-conversion technologies and the manner in which some of these could be integrated into low

cost hybrid energy systems

A journal of this type is needed by this country as also by the developing countries of the Third World. For us in particular, as Dr Maheshwar Dayal, Secretary, Commission for Additional Sources, of Energy, says in his foreword, biological based systems are of particular importance, because we are predominantly an agricultural country. He points out that even today more than 40 per cent of energy comes from non-commercial sources like wood and wood waste and agricultural wastes. Dr Paul himself in a very informative article on bio-mass resources of India points out that in our conditions, tapioca, mass cultivated on fallow lands, sugar beet and sweet sorghum are the more reliable sources of fuels and sweet potatoes and Jerusalem antichokes are other possible crop sources. He estimates the crop residues from these sources at over 300 million tonnes and suggests that they can provide the biggest asset base for these fuels on bio-mass. This volume, he says, would go up to 500 million tonnes per annum if the other agro-industrial wastes were also included. Obviously, there is limited literature on bio-energy, and Dr Paul has a hard task before him in making a success of this journal.

D. B. Mahatme

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SPECIAL REPORTS

Major cabinet reshuffle

NEW DELHI

IN a major cabinet reshuffle on Thursday, the Prime Minister, Mrs Indira Gandhi, nominated Mr P. C. Sethi as the Home Minister, a portfolio which was being looked after by the Defence Minister, Mr R. Venkataraman, after the election of Mr Giani Zail Singh as the President of India. The Prime Minister changed the portfolios of as many as seven senior and seven junior ministers and inducted five new ministers of the state and three deputy ministers. She also split three ministries adding Petroleum to the Energy Ministry and making Chemicals and Fertilisers into a separate department under the charge of Mr Vasant Sathe whose Information and Broadcasting portfolio has been put in charge of a new entrant to the council, Mr N. K. P. Salve. At the same time the coal department was taken away from the Energy Ministry and clubbed with the Ministry of Industry. Tourism and Civil Aviation have also been split and put in charge of two different ministers of state and a new department of non-conventional sources of energy in the Ministry of Energy has been created with Mr C. P. N. Singh in charge.

Mrs Gandhi made no changes in the portfolios of her senior colleagues—Mr Pranab Mukherjee (Finance), Mr P. V. Narasimha Rao (External Affairs), Mr R. Venkataraman (Defence), Mr S. B. Chavan (Planning), Mr N. D. Tiwari (Industry, Steel and Mines), Mr Kedar Pandey (Irrigation), Mr B. Shankaranand (Health and Family Welfare), Mr Rao Birendra Singh (Agriculture) and Mr Jagannath Kaushal (Law, Justice and Company Affairs), Mr Bhishma Narain Singh (Works, Housing and Parliamentary Affairs).

A significant move on the part of Mrs Gandhi was to include Mr Ramchander Rath, Mr Digvijay Singh, Mr Ghulam Nabi Azad and Mr Ashok Gehlot in the council of ministers as deputy ministers. All these four were close to Mr Sanjay Gandhi and this move on the part of the Prime Minister is seen by observers as a step to pacify disgruntled elements in the Youth Congress (I).

The following is the list of council of ministers after the reshuffle :—

Cabinet Ministers

Mrs Indira Gandhi—Atomic Energy, Space, Science and Technology
Mr Pranab Mukherjee—Finance
Mr P. V. Narasimha Rao—External Affairs
Mr R. Venkataraman—Defence
Mr P. C. Sethi—Home
Mr C. M. Stephen—Transport and Shipping
Mr S. B. Chavan—Planning
Mr A. B. A. Ghani Khan Chaudhari—Railways
Mr Bhishma Narain Singh—Works, Housing and Parliamentary Affairs
Mr Shiv Shankar—Energy and Petroleum
Mr Kedar Pandey—Irrigation
Mr Vasant Sathe—Chemicals and Fertilisers
Mr N. D. Tiwari—Industry, Steel and Mines
Mr A. P. Sharma—Communications
Mr B. Shankaranand—Health and Family Welfare
Mr Veerendra Patil—Labour
Mr Rao Birendra Singh—Agriculture

Bombay spot exchange rates of currencies as on 30th August, 82

(Currency units per Rs. 100)			
Country	Currency	Selling T.T.D.D.	Buying T.T.clean
Australia	A. \$	10.590	10.785
Austria	A. Schilling	178.10	181.80
Belgium	B. Franc	488.50	499.00
Canada	C. \$	12.750	12.980
Denmark	D. Kroner	89.30	90.95
France	Franc	71.75	73.15
Hong Kong	H.K. \$	62.25	63.80
Italy	Lira	14394	14689
Japan	Yen	2654	2699
Malaysia	M. \$	24.16	24.58
Netherlands	Guilder	28.02	28.50
Norway	N. Kroner	68.40	69.75
Singapore	S. \$	22.19	22.57
Sweden	S. Kronor	62.80	64.05
Switzerland	S. Franc	21.72	22.11
UK	£	5.9815	6.0255
USA	\$	10.320	10.425
West Germany	D. M.	25.55	25.97

Source : Syndicate Bank, International Division, Central Office, Bombay—400 021.

Mr Jagannath Kaushal—Law, Justice and Company Affairs

Ministers of State and Deputy Ministers

Mr Shiv Raj Patil—Commerce
Mr Bhagwat Jha Azad—Civil Aviation and Civil Supplies
Mr Buta Singh—Supplies and Sports
Mrs Sheila Kaul—Education and Social Welfare
Mr N. K. P. Salve—Information and Broadcasting
Mr Khursheed Alam Khan—Tourism
Mr A. A. Rahim—External Affairs
Mr Pattabhi Rama Rao—Finance
Mr H. K. L. Bhagat—Works, Housing and Parliamentary Affairs
Mr Veer Bhadra Singh—Industry
Mr Gargi Shankar Mishra—Steel Mines and Coal
Mr Ramachandra Rath—Chemicals
Mr R. V. Swaminathan—Agriculture
Mr Baleshwar Ram—Agriculture
Mr N. R. Laskar—Home
Mr P. Venkatasubbiah—Home
Mr Yogendra Makwana—Communications
Mr C. K. Jaffer Sharief—Railways
Mr C. P. N. Singh—Non-conventional energy sources
Mr Sitaram Kesri—Shipping and transport
Mr Z. A. Ansari—Irrigation
Mr Vikram Mahajan—Energy
Mrs Ram Dulari Sinha—Industry
Mr Dalbir Singh—Energy
Mr Ashok Gehlot—Tourism
Mr Digvijay Singh—Ecology
Dr M. S. Sanjiva Rao—Department of Electronics
Mr K. P. Singh Deo—Defence
Mr Janardhan Poojary—Finance
Mr Kalpanath Rai—Parliamentary Affairs
Mr Arif Mohammad Khan—Information and Broadcasting
Mr Ghulam Nabi Azad—Law
Mr Giridhar Gomango—Supply and Rehabilitation
Mr Dharam Vir—Labour
Mr Mallikarjun—Railways and Parliamentary Affairs
Mr Mohammad Usman Arif—Agriculture and Civil Supplies
Mr Vijay Patil—Communications
Mr P. K. Thungon—Education
Mr Brajmohan Mohanty—Works and Housing
Miss Kamala Kumari—Agriculture
Mr P. A. Sangma—Commerce

SPECIAL REPORTS

GROUNDNUT EXTRACTIONS

Dismal export outlook

BOMBAY

GROUNDNUT extraction exports plummeted last year to 3.44 lakh tonnes valued at Rs 52.88 crores because of easy availability of competing vegetable proteins in the international market led by soyabean. Indian groundnut meal, which is a less preferred protein for compound feed formulations, was thus outpriced in world markets. According to Mr S. B. Jhaveri, chairman of the Groundnut Extractions Export Development Association (GEEDA), the export duty of Rs 125 per tonne on groundnut extractions makes it more difficult for exporters to compete in an international market depressed for agricultural commodities. GEEDA has, therefore urged the Government to abolish export duty to make Indian groundnut meal exports more competitive.

Mr Jhaveri says, one reason for the fall of exports to the western countries was the stringent regulations importing countries like France and the UK had adopted for permissible levels of aflatoxin B1 in groundnut extractions. He feels this subject should be discussed at government to government level.

Compared to groundnut extraction exports of 4.59 lakh tonnes (Rs 60.86 crores) in 1980, shipments last year represented a decline of 1.15 lakh tonnes or 25 per cent. In any case, export performance in 1981 was the poorest for many years and represented a decline of 72.4 per cent or 9.02 lakh tonnes compared to record exports of 12.46 lakh tonnes achieved in 1976.

In 1981, the share of exports to free foreign areas was 65,677 tonnes (19.1 per cent of the total) earning Rs 10.22 crores and to rupee payment areas it was 2.78 lakh tonnes

AS I SEE IT

Whither public sector management?

I HAVE been an unashamed, almost a blind, supporter of the public sector and have taken for granted some wastage and mismanagement because of the pioneering role of the public sector in many areas and the relative lack of experience. Nevertheless some recent disclosures point to a type of mismanagement which is difficult to explain away. The newly-appointed minister of power of the West Bengal Government, Mr Sankar Gupta, made the statement on August 21 in Howrah, near Calcutta, while addressing a meeting of the district workers' union of the West Bengal State Electricity Board (WBSEB) that the amount paid to the WBSEB staff as overtime was on an average 16 per cent higher than the salary bill. The board has a stock of unserviceable and scrap materials valued at about Rs 2.14 crores. For years on the godown had been stocked with materials which the board did not need. Pilferage was rampant and the police had recovered from other states goods stolen from the board's office and godown. Attempts had been made to hush up the cases of theft by some interested people. The WBSEB had virtually become a "den of vested interests", the minister observed.

Such a summing up of the working of the organisation would be shocking even if it comes from an opposition lea-

der, who might be considered to be somewhat prone to exaggerating the failures of the administration. Coming as it did from the minister-in-charge of electricity in West Bengal, the disclosure must be considered to be the most moderate statement of a fact. After all this statement was not being made to denounce a party in political opposition. During the last five years Mr Gupta's own partyman and Chief Minister, Mr Jyoti Basu, had been in charge of the WBSEB. That such a scandalous regime in the WBSEB survived five years of overseeing by Mr Basu does not exactly bring credit to Mr Basu or the government he had been heading. Nevertheless, the limit to ministerial responsibility has to be noted.

If engineers and accountants do not sign attendance registers and do not stay at the place of their work during working hours it is very difficult for any minister to assume responsibility. Parliamentary responsibility can work only so long as everybody concerned with the matter works conscientiously. This essential condition for democratic functioning is missing. Engineers of WBSEB, "particularly in the Santaldih and Bandel thermal power stations are also absent for prolonged periods from their work sites without authorisation," says a newspaper report. The same report adds: "The simultane-

ous absence of many senior Accounts Officers, who alone are authorised to sign cheques of over Rs 50,000 from the power plants, has on a number of occasions delayed plant staff in taking delivery of railway consignments of equipment and other goods. The board had to incur heavy demurrage reportedly on this account".

Evidently no organisation can prosper when persons working at the higher levels work in this indisciplined manner. The choice of the chairman of the WBSEB whose duty must include exactly this function of overseeing must be regarded as crucial. The persons holding the position were either unable or unwilling to enforce the minimum discipline of attendance by the officers and the members of the staff. The then minister-in-charge (Mr Jyoti Basu) can hardly escape responsibility for such a poor choice of the persons to head an organisation. At the same time a chairman, however efficient he may be, cannot become effective in a mass organisation like the WBSEB, employing thousands of workers, if the government does not want him to succeed and if the state administration permits recalcitrant unions to undercut the efforts of the chairman to improve things. Engineers of the WBSEB are sore over the excessive politicalisation of unions at the power plants and unnecessary interference in administration.

Subhash Chandra Sarker

SPECIAL REPORTS

(80.9 per cent) earning Rs 42.66 crores.

What is the outlook for the current year? Against an export quota of 6 lakh tonnes for 1982, Mr Jhaveri says, exports are expected to touch only 3 lakh tonnes. Between January-July, exports have been estimat-

ed at 1.70 lakh tonnes (Rs 23.5 crores). Unless the Government adopts a stable long-term policy for exports (this is because India has come to be regarded as an unstable source of supplies for groundnut meal) the prospects of stepping up exports in the near future are not promising.

ment asked the world community to take cognizance of and suitably deal with this grave and menacing situation. The two leaders also expressed their firm support to the African National Congress in its fight against the fascist system of apartheid and hoped that Namibia would achieve independence in early 1983 in terms of the UN security council resolution.

India to provide training facilities to Mozambique

MAPUTO

INDIA has agreed to provide a new line of credit of Rs 5 crores to Mozambique to help it purchase Indian goods and also provide technical training facilities for Mozambican personnel in Indian institutions. It will also depute Indian experts to this country.

These are some of the important features of the joint communique issued at the end of the talks between the India Prime Minister, Mrs Indira Gandhi, and the Mozambique President, Samora Machel, here on August 27. Mrs Gandhi arrived here on August 25 after concluding a tour of Mauritius. Her visit to this country was also eagerly being looked forward to and was expectedly hailed by Mozambicans.

The joint statement expressed satisfaction at the implementation of the programme of cooperation agreed upon in New Delhi when Mr Machel visited India last April. The two leaders noted in the statement that an agricultural team and works and housing team from India had already visited Mozambique to identify specific areas of cooperation. An industrialists' team would also visit this country next month (September). According to the statement, the possibilities of further strengthening economic and cultural relations between the two countries were also discussed.

The statement strongly indicted the racist regime of South Africa and

condemned the interference by that country in the internal affairs of a non-aligned and developing country like Mozambique. What came in for particular condemnation was the occupation of part of the territory of the People's Republic of Angola by South African troops. The state-

The main aim of Mrs Gandhi's visit to Maputo was to reaffirm India's support for the Mozambican struggle against South Africa. As one of the five front line states, Mozambique has borne the brunt of the aggression by South African troops on neighbouring countries. The Indian Prime Minister, while stating that it was not possible for India to intervene militarily, assumed that India would do everything short of it to help the people of Namibia in achieving independence from South Africa.

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

Item	Quality	Rs per kg				Percentage variation on August 27, 1982 over		
		Aug. 27, 1982	Aug. 20, 1982	July 30, 1982	Aug. 28, 1981	A week ago	A month ago	A Year ago
Rice	Average	5.00	5.00	5.00	3.60	—	—	38.9
Wheat	Average	4.25	4.25	4.25	3.50	—	—	21.4
Jowar	Average	3.00	3.00	3.00	2.30	—	—	30.4
Bajra	Average	3.00	3.00	3.00	2.30	—	—	30.4
Gram dal	Average	6.00	6.00	6.00	6.50	—	—	-7.7
Tur dal	Average	7.50	7.50	7.75	6.80	—	-3.2	10.3
Potatoes	Average	2.50	2.50	2.50	2.25	—	—	11.1
Onions	Average	1.50	1.50	1.50	1.60	—	—	-6.3
Milk per litre	Buffalo	6.00	6.40	6.40	6.00	-6.3	-6.3	—
Tea	Average	26.00	26.00	26.00	23.00	—	—	13.0
Coffee	Average	20.00	20.00	20.00	17.50	—	—	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.70	1.70	1.55	1.55	—	9.7	9.7
Sugar	Average	5.00	5.40	6.00	5.80	-7.4	-16.7	-13.8
Gur	Average	5.75	6.00	6.00	6.50	-4.2	-4.2	-11.5
Groundnut oil	Average	14.75	15.00	15.00	16.00	-1.7	-1.7	-7.8
Vanaspati	Average	16.50	17.00	17.00	15.00	-2.9	-2.9	10.0
Toilet soap	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

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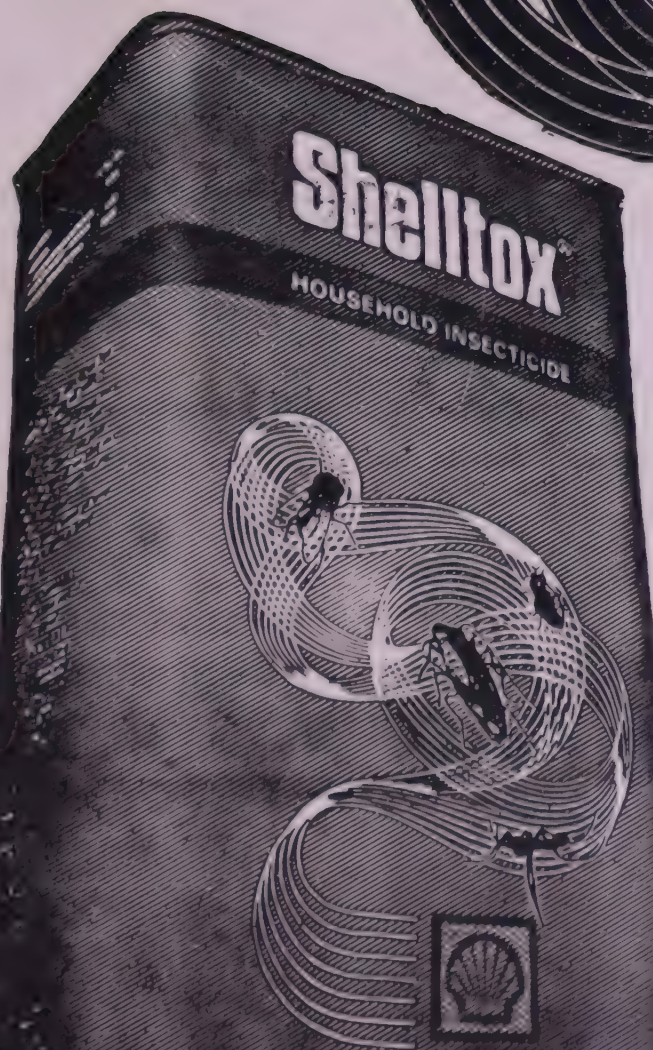


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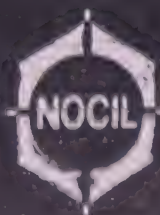


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SPECIAL REPORTS

BANGLADESH

Denationalisation process on

From ZAKERIA SHIRAZI

DACCA

PUBALI Bank and Uttara Bank, two of the smaller of the six nationalised banks, may be transferred to private sector. This possibility arises in view of the recommendations of Martial Law Investigation Committee on Banking and Financial Institutions which is looking into the affairs of nationalised banks. These two banks may be restored to their former Bangladeshi owners. It has also been reported that the authority is contemplating outright sale of the two banks. The investigation committee found that these two banks, during most of the financial year, failed to maintain statutory reserve ratio which is five per cent of the total demand and time liabilities to be maintained in Bangladesh Bank as cash reserve.

Significantly, Chief Martial Law Administrator, Lieut. General H. M. Ershad, told a weekly journal recently in reply to a question that whether or not bank and insurance should be transferred wholly to private sector is a question of policy and that, in future, measures, which were considered desirable in the interest of overall economic interest of the country, would be adopted. He also said that they favoured healthy competition between public and private sector. The investigation committee is also reviewing uneconomic bank branches which proliferated in recent years and has recommended that bank branches which do not have deposit and loan business to the tune of take two crore in cities and taka one crore in villages should not exist.

Total number of scheduled bank branches in Bangladesh stood at 4,378 on June 30, 1981, according to annual report of Bangladesh Bank, the central bank. Majority of these branches were in rural areas and percentage of rural branches stood at 65.12. Total bank deposits in December 1981 stood at Taka 3511.66 crores. Total bank credit till December 1981 was Taka 3,788.19 crores.

Meanwhile, the process of denationalisation of jute and textile mills is on and former owners of 33 jute mills and 25 textile mills have, after prolonged negotiations with government, agreed to take back their mills with all loans and liabilities. Negotiations had bogged down over the question of acceptance of those loans. Initially, the former owners declined to accept these loans maintaining that the loans had accumulated after nationalisation. The loans amounted to Taka 160 crores for jute mills and more than Taka 40 crores for textile mills.

Another point of disagreement had been retrenchment. While the

former owners agreed not to retrench workers they were reluctant to give such guarantee in respect of managerial staff maintaining that after nationalisation the administration of the mills had become top heavy. However, an inducement for mill-owners is that the worth of the mills has gone up manifold during the last eleven years. The outlines of draft agreement for transfer are: loans of jute mills would be repaid over a period of 12 to 15 years with a moratorium of three years and those of textile mills would be repaid in six to nine years with a moratorium of three years. In principle, cent per cent ownership would be transferred to former owners but in the initial stage 49 per cent of the shares would be reserved for public. If the shares thus reserved for public or any portion thereof remained unpurchased, they will have to be purchased by the owners. The value of mills would be determined on the basis of their then face value.

Computerising of clearing house

BOMBAY

BETTER customer service is promised by banks in Bombay with the computerisation of the clearing house by the Reserve Bank of India from October. Cheques will be cleared the same day instead of taking two or three days, which is to be the case with the present manual operation of the clearing house. This manual operation used also to create serious problems for the industrial and business community during the time of bank agitation when bank representatives would not attend the clearance and upset the whole system. Over the years the number of cheques cleared by the Bombay Clearing House has increased to 2.5 lakhs a day and balancing of clearing house was invariably delayed.

While the clearing house in Bombay is to be computerised from October, the Reserve Bank has also set in move plans to computerise other 10 clearing house centres which it operates at New Delhi, Madras, Calcutta, Hyderabad, Ahme-

dabad, Bangalore, Patna, Bhubaneswar, Kanpur and Nagpur. The programme will be taken up in a phased manner and it is expected to be completed soon.

The mini-computer system, indigenously manufactured and designed by ORG Systems of the Ambalal Sarabhai group, has 10 data entry terminals. Inputs from the present 50 bank members of the clearing house can be fed into the terminals and printed copies of the adjustment statements would be available within half an hour. There will be now no fixed time for clearance (1.00 p.m.), as it used to be the case so far, and member banks can send in their representatives to the house at any time between 9.00 a.m. to 7.00 p.m. They can also feed the clearing house with multiple statements.

It should be possible now for the Reserve Bank to do the clearance of cheques not once in a day, but at least two times in a day. This should be welcomed by banks

SPECIAL REPORTS

as it will help them to give better customer service.

As at present the clearing house has 50 members, but there are many more banks in Bombay and they have to present their cheques as 'sub-members' to some other banks. With the computer system, it should now be possible to give separate membership to all these banks by increasing the number of terminals, if necessary. It is also possible that the 10 terminals in operation would suffice. But then the adjustment statements would be available not within half an hour, but possibly in 45 minutes or 50 minutes.

The computerisation of the clearing house has created lot of interest among banks in Bombay. This was evident from the large number of bank representatives who attended the demonstrations of the computer system arranged by the Reserve Bank and the manufacturers. Both the RBI and the manufacturer representatives at the demonstration and which this correspondent attended, were subjected to a lot of questioning, and a demonstration which was scheduled to run for half an hour was not over for 100 minutes.

One important question asked was whether the branches in the Bombay city of a bank could feed in the clearing house with their statements. The Reserve Bank representatives explained that this would not be difficult to arrange; but they suggested that a certain number of branches could be grouped and prepare a joint statement if the head office delegated this power to them. There were some semi-technical questions also. What would happen if the voltage fluctuated or the mini-computer system failed? The voltage fluctuation problem was asked in regard to a specific station like Calcutta, and a State Bank of India representative said that their computer system in operation at Worli in Bombay some times did not give satisfactory service because of voltage fluctuations. The manufacturers assured that the mini-computer system would be fitted in with stabilisers to overcome the problem of power fluctuations while the Reserve Bank of India representatives said that a full back-up and stand-by system was being installed in the Bombay clearing house so that work could not come to a halt.

Hongkong : A victim of recession in the West

From M. P. GOPALAN

HONGKONG

WHEN it rains in the United States, Hongkong must get itself ready to unfold its umbrella. In pure business terms, it is an undeniable fact. The local economy is so open and so dependent on trade that it is easily vulnerable to developments in the United States and other industrialised countries.

Recession in the Western countries is causing closures of industrial and trading houses. Most factories operate fewer hours in reduced shifts. However, the falling interest rates console bankers and may prove to be of some help.

After a good five years of uninterrupted growth at an average rate of ten per cent in real terms, domestic exports have finally slowed down. For the first five months of 1982, exports went up by 7 per cent; after allowing for the usual price increases, it is no growth at all. Re-exports, the most buoyant sector in recent years, also rose by a much reduced rate of 10 per cent.

Hongkong's domestic exports in 1981 amounted to HK \$80,423 million, (US \$13,866 million), more than a third of which went to the United States, followed by another third to other advanced countries.

Clothing and textiles continue to account for some 40 per cent of total domestic exports. The quantity restrictions imposed by the major markets have already begun to affect this vital area of the manufacturing sector. Toys, and watches and clocks each accounted for nearly 9 per cent each of domestic exports.

However, domestic exports are picking up to West Asia and China, two non-traditional markets. These two territories accounted for 4 per cent and 3.6 per cent of exports in 1981 respectively, as against 1.7 per cent and 0.1 per cent ten years ago. Sales in West Asia in large measure, are handled by companies controlled by Indians. The semi-official Hongkong Trade Development Coun-

cil, realising the potential of this market, is currently organising a huge trade fair in Jeddah, Saudi Arabia, scheduled for the first week of December.

China, traditionally Hongkong's largest source of imports (recently surpassed by Japan), has become one of the fastest growing markets for Hongkong products. Exports to that country amounted to HK \$1,517 million (US \$262 million) in the first five months of this year, an increase of 71.5 per cent over the corresponding period in 1981. This growth is attributed to the newly set up special economic zones in neighbouring Guangdong province, which offer tax and other concessions for investors. For Hongkong as well as other foreign investors, the zones provide cheap and disciplined labour as in any communist country.

An analysis of the commodity composition shows that domestic exports to China chiefly comprise raw materials and semi-manufactured goods destined for processing in the special economic zones. The bulk of the finished goods is shipped back to Hongkong for ultimate exports. This indicates that the marked expansion of trade with China in recent years is associated with foreign investments inside the country.

Being an entrepot, Hongkong re-exports a sizable amount of goods, the value of which was HK \$41,739 million (US \$7,196 million) in 1981. During the first five months of this year re-exports accounted for HK \$17,970 million (US \$3,098 million), in the comparable months last year as against HK \$16,271 million (US \$2,805 million).

Hongkong's imports were valued at HK \$138,375 million (US \$23,858 million) in 1981. In the first five months of 1982, imports amounted to HK \$57,028 million (US \$9,832 million) as against HK \$54,199 million (US \$9,345 million) in the comparable period a year ago.

West-West trade war over Soviet gas pipeline

(Concluded from page 368)

the same amount of trade transactions were carried.

Probably pursuing this theory of "dependence" of West Europe on the Soviet Union, the US President, Mr Ronald Reagan, decided to put an absolute ban on the American firms to supply technical equipment for the proposed 4650 kilometre European-Soviet gas pipeline to facilitate the flow of natural gas from Siberia from 1985 onwards to the countries of West Europe. Mr Reagan's embargo also included those European firms, who were producing equipment for the project under the US-licences. In West Germany, this US decision was deplored in strongest terms. Also France, Italy and Japan, whose business firms were involved in the project, were quick to criticise the embargo decision of the US President. In view of the fact that major parts of the project were constructed under US licences by West German firms, the Chancellor, Mr Helmut Schmidt, and the Economic Minister, Mr Otto Graf Lambsdorff, visited the United States in order to convince President Reagan and his aides that the West Europeans would remain firm in keeping their promise given to the Soviet Union. But the US-leadership remained unmoved. Now no one is seriously thinking that the Americans would withdraw the ban before the end of the year.

The gas pipeline deal, which is termed by the West Europeans as the project of "the century", is a contract between the Russian Sojus Gaz Export and a consortium of West European firms. Accordingly, the Soviet Union agreed to channel natural gas to West Europe provided the Europeans themselves supplied the necessary technical equipment, including six million tonnes of steel pipeline, for the construction of the 4650 kilometre pipeline from Siberia to West Europe. In view of their large dependence on Arab oil, the West European governments agreed to accept the Soviet gas offer and decided to extend the state guar-

antee for the necessary long-term bank loans to the Soviet Union.

In West Germany, the first Soviet proposal for the purchase of steel pipelines was made to the German firm of Mannesmann in 1970. Two years later in 1972, the Mannesmann management signed the contract with the Soviet Sojus Gaz Export for the supply of three million tonnes of steel pipeline, pumping stations and other equipment for the project. The Germans started supplying the steel pipelines from October 1, 1973. A year later, the Russians signed another agreement with Mannesmann, which set out the German supply of technical equipment. By the end September 1981, the gigantic Soviet-European gas pipeline project, involving industrial and engineering firms of West Germany, France, Italy, Japan, Great Britain and Canada and a western long-term credit of about DM. 20 billion was progressing ahead. Initially Bonn was prepared to give DM. 12 billion long-term credit to the Soviets at the interest rate of 8 per cent. But the Russians found the interest rate very high and declined the offer. Finally, after long negotiations, the West German group of banks agreed to a credit of DM. 10 billion at the interest rate of 7.8 per cent. However, the whole credit would be repaid through the supply of Russian natural gas to West Germany.

As far as technical equipment for the project is concerned, the Franco-German firms, Mannesmann/Creusot-Loire consortium have agreed to supply 22 out of 41 pumping stations to the Soviets at a cost of DM. 2.2 billion. The Italian firm Nuovo Pignone has received orders worth DM 1.8 billion. Another West German firm, the AEG-Kanis has got orders for electrical motors and compressors for DM. 700 million. Mr Reagan's embargo has hit hard AEG-Kanis. Recently the whole AEG concern was reported to be in financial difficulty. In order to save the

concern, Bonn has now given DM. 600 million to the firm.

The US ban on transferring of "sensitive technology" for the gas pipeline is regarded here as a "wrong political decision". Apparently Mr Reagan wanted to "punish" the Soviet Union for its alleged role in the suppression of the people of Poland. But economic sanctions are hardly effective in solving political issues. This argument was also shared by Mr Georg Shultz, the new US Foreign Secretary, in a recent television interview. However, as far as Poland was concerned, Mr Shultz made an exception and decided to support Mr Reagan's embargo orders. Some US Senators were also against the ban order and declared their support for West Germany's Chancellor, who demonstrated firmness in honouring Bonn's commitments for the gas pipeline deal.

"Our credibility is at stake, if we default in our commitments and contracts given to the Soviet Union," Mr Schmidt reiterated in the USA. But even today there are no signs that the US embargo would be withdrawn in the near future. This is because Mr Reagan's basic attitude towards Moscow is said to be "popular" in Washington. As the elections for the Congress are nearing, Mr Reagan is expected to defend his hard line against the Soviet Union. He would be doing so by risking even an open conflict with his West European allies.

Economic observers, however, are of the opinion that the US embargo would do no basic harm to the proposed European-Soviet gas pipeline project. It could at best delay the completion of the project, scheduled to be in operation from 1985. Meanwhile, the Soviets themselves have started producing the technical equipment, which were to be supplied by the US-licensed firms in West Europe. The American embargo decision has suddenly created a situation in which the Soviets have emerged as "good clients" for West Europe. Bonn, Paris and London have mounted criticism against the USA and have unanimously asked for the withdrawal of the embargo. The war of words on both sides of the Atlantic might even shake the Western solidarity. The only gainer of the West-West conflict is undoubtedly the Soviet Union.



Shree Manufacturing Company Limited

(Promoted by the erstwhile members of Indian Copper Corporation Ltd.)

Registered Office : A-1, Gillander House, Netaji Subhas Road, Calcutta-700001.

Public Issue of 12,30,000 Equity Shares of Rs.10/- each for cash at par.

FOR INVESTORS' ATTENTION

Investment in Shares of this Company is entitled to deduction under various sections of the Income Tax Act, 1961 and Wealth Tax Act.

UNDER SECTION 80 CC OF THE INCOME TAX ACT

The benefit varies with taxable income as under :

Face Value = Rs.10/- each per share

Individual Income slab (Rs.)	Tax Rate	Benefit per share (Rs.)	Net Cost per share (Rs.)
15000 to 25000	33%	1.65	8.35
25000 to 30000	37.4%	1.87	8.13
30000 to 50000	44%	2.20	7.80
50000 to 70000	55%	2.75	7.25
70000 to 1,00,000	60.5%	3.02	6.98
1,00,000 & above	66%	3.30	6.70

UNDER SECTION 80L OF THE INCOME TAX ACT

* Income by way of dividend upto a maximum of Rs.4,000/- will be allowed as deduction from taxable income under Section 80 L of the Income Tax Act, 1961.

UNDER WEALTH TAX ACT

* Wealth tax will not be payable by individuals on specified assets which include shares in this company upto an aggregate of Rs.1.65 lakhs.

Managers to the Issue



STATE BANK OF INDIA
Merchant Banking Division

Public Issue opens
on 14th September 1982

PRESSMAN

CORPORATE SECTOR

In the market

Free Manufacturing

For an investment company, Free Manufacturing Co Ltd (Regd Office: A-1 Gillander House, Netaji Subhash Road, Calcutta 700 001) is doing pretty well since it came to being in November 1976. Its turnover has risen ten-fold from about Rs 10 lakhs to over Rs 116 lakhs by December 1981 whereas reserves and surplus went up by seven times from Rs 5 lakhs to Rs 36 lakhs. The company has been paying dividends regularly, the figure for 1981 being 13.5 per cent.

As Mr G. D. Kothari, chairman of the company, explained at a press conference on Tuesday, the company was formed by the former shareholders of Indian Copper Corporation Ltd, following the government take-over of that company's undertaking in 1972. Mr Kothari, who was also the chairman of ICC, said that ICC which had been engaged in investment business, had been thinking of going into manufacturing activity for some time past as soon as a viable scheme was found. Accordingly, it had decided to set up a spinning mill with 15,840 spindles in Isnapur village in the Patanaheru block of the Medak district of Andhra Pradesh. Mr Kothari pointed out that the Rs 810 lakh project could be the first in that State to manufacture man-made fibres. It was in an advanced stage of implementation and trial production was expected to commence by December this year.

In order to raise part of the funds for financing the project, the company will enter the capital market on September 14 with a public issue of 12.30 lakh equity shares of Rs 10 each, totalling Rs 1.23 crores. The issue managed by the merchant banking division of the State Bank of India will close on or before September 24 but not earlier than September 16. Mr Kothari visualised bright prospects for the project as there were a number of synthetic fibre using units in the proximity of the project site. He expected a turn-

over of Rs 14 crores to Rs 15 crores by 1984 when the project would be in full production.

Diamant Carbon & Graphite Products

Diamant Carbon and Graphite Products Ltd (Regd Office: 55 Hira-bhai Market, Ahmedabad 380 022) entered the capital market on September 1 with a public issue of 350,000 equity shares of Rs 10 each at par, totalling Rs 35 lakhs. The issue is managed by the merchant banking division of the State Bank of India. The proceeds of the issue will partially finance the cost of a Rs 3.40-crore project at Mehsana, a backward area in Gujarat, to manufacture 1,000 tonnes annually of crucibles and other carbon and graphite products. These products are in continuous demand from the metallurgical industries and the company will be the first in India to make these products to German specifications of the collaborator, M/s Becker & Piscantor of West Germany, who have been supplying these products to India so far. According to Mr Jitendra Dalal, a director of the company, the construction work on the project is in an advanced stage and commercial production is expected to begin early next year.

Other developments

SLM-Maneklal: Higher sales

Sales and other income of SLM-Maneklal Industries Ltd for the year ended March 1982 increased to Rs 25.78 crores from Rs 23.11 crores in the previous year. The net profit after providing Rs 52.56 lakhs (Rs 48.09 lakhs) for depreciation, Rs 38.42 lakhs (Rs 17.60 lakhs) for taxation was Rs 45.83 lakhs (Rs 66.47 lakhs). The equity dividend recommended for the year under review is 14 per cent (same). An amount of Rs 8.97 lakhs (Rs 25.68 lakhs) is transferred to investment allowance reserve and Rs 2.21 lakhs (Rs 3 lakhs) to general reserve. Exports during the year under review, were Rs 1.02 crores. The company has on hand export order for Rs 2

crores. Sales for the first four months of the current year were Rs 6.30 crores. Pending orders on hand amount to Rs 11.68 crores.

Enfield India to expand

Sales of the Enfield India Ltd for the year ended June 1982 increased to Rs 40.53 crores from Rs 31.95 crores in the previous year. The net profit after providing Rs 1.10 crores (Rs 1.13 crores) for financial charges and Rs 39.40 lakhs (Rs 28.05 lakhs) for depreciation was Rs 2.31 crores (Rs 1.32 crores). The equity dividend recommended for the year under review is 20 per cent, payable on the increased capital. An amount of Rs 62.10 lakhs (nil) is transferred to investment and development rebate reserve, and Rs 90.28 lakhs to general reserve. Production of bullet motorcycles during the year under review, was 22,225 units (19,512 units) and that of mini bullets was 6,865 units (4,866 units).

The company has received a letter of intent for expanding production capacity of two wheelers from 30,000 units to 1.20 lakh units per annum. A new factory is proposed to be set up for implementing the expansion scheme with an outlay of Rs 26 crores over three years in the major first phase. The capital expenditure is proposed to be met through term loans, deferred credits and internal resources.

Forthcoming company meetings

SEPTEMBER 4 TO SEPTEMBER 10

SESHASAYEE INDUSTRIES LTD, Vadalur 607 303, S. Arcot district, (Sept. 5, 10.30 a.m.)

EASTERN CACHAR TEA CO LTD, 9, Brabourne Road, Calcutta 700 001, (September 6, 1 p.m.)

TATA OIL MILLS COMPANY LTD, Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, Bombay 400 020. (Sept. 8, 4 p.m.)

INDIAN DYESTUFF INDUSTRIES LTD, Patkar Hall, SNDT Women's University, 1, Nathibai Thackersey Road, Bombay 400 020. (Sept. 9, 3.30 p.m.)

Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rs lakh)

Name of Company	Blue Star		Graphite India		Industrial Cables (India)		Otis Elevator Company (India)		Toshiba Accumulator Battery	
Industry Group	Electrical goods		Electrical goods		Electrical goods		Electrical goods		Electrical goods	
Item	Year ended December		Year ended December		Year ended October		Year ended November		Year ended December	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Liabilities (at the end of the year)										
1. Net worth (i+ii)	340.1	398.7	1,251.4	1,350.8	617.7	713.5	508.7	540.7	186.7	194.7
(i) Paid-up capital (a+b)	147.9	147.9	445.8	445.8	191.8	191.8	157.5	252.0	147.9	147.9
(a) Equity	138.8	138.8	420.8	420.8	160.8	160.8	157.5	252.0	138.8	138.8
(b) Preference	9.1	9.1	25.0	25.0	31.0	31.0	—	—	9.1	9.1
(ii) Reserves	192.2	250.8	805.6	905.0	425.9	521.7	351.2	288.7	175.1	175.1
2. Borrowings (i+ii)	195.4	409.1	842.1	1,102.4	1,128.1	1,485.0	5.2	51.6	116.7	122.5
(i) Long-term	33.9	88.8	110.2	91.1	412.2	560.6	—	51.6	7.3	7.3
(ii) Short-term	161.5	320.3	731.9	1,011.3	715.9	924.4	5.2	—	115.2	115.2
3. Non-current liabilities and provisions	—	—	—	—	—	—	—	—	—	—
4. Current liabilities and provisions	2,092.6	2,496.4	873.1	1,150.0	362.4	366.7	1,450.2	2,153.6	180.2	177.2
Assets (at the end of the year)										
5. Gross fixed assets	243.3	297.7	2,076.1	2,220.7	1,183.6	1,423.2	379.1	581.9	209.8	222.2
6. Less depreciation	96.3	121.3	732.5	887.8	309.2	384.0	197.2	243.5	56.4	61.4
7. Net fixed assets (5-6)	147.0	176.4	1,303.6	1,332.9	874.4	1,039.2	181.9	338.4	153.4	160.8
8. Current assets (i+ii+iii)	2,481.1	3,127.8	1,663.0	2,270.3	1,233.8	1,526.0	1,779.3	2,405.1	326.2	371.2
(i) Inventories	1,551.7	2,149.6	1,247.2	1,446.4	659.7	767.8	1,033.5	1,305.2	210.3	210.3
(ii) Receivables and loans and advances	829.2	931.0	355.8	750.6	514.1	704.9	661.3	781.8	75.3	97.2
(iii) Others	100.2	47.2	60.0	73.3	60.0	53.3	84.5	318.1	40.6	83.7
9. Other assets	—	—	—	—	—	—	2.9	2.4	9.8	10.0
Total: Liabilities (1 to 4) or Net assets (7 to 9)	2,628.1	3,304.2	2,966.6	3,603.2	2,108.2	2,565.2	1,964.1	2,745.9	489.4	566.2
Value of production and other income										
10. Sales/income net of excise duty, discounts and selling commission	4,293.6	5,286.8	2,527.5	3,113.0	3,366.7	4,001.4	1,326.2	1,270.7	847.9	1,126.2
11. Increase in stock of finished goods and work in progress	352.5	533.7	443.6	314.6	41.5	184.6	182.4	271.7	20.2	—45.2
12. Value of production (10+11)	4,646.1	5,820.5	2,971.1	3,427.6	3,408.2	4,186.0	1,508.6	1,542.4	868.1	1,081.0
13. Other income	48.5	75.4	23.6	21.6	20.0	11.0	23.2	38.2	9.8	8.0
Expenditure										
14. Materials, stores and other mfg. expenses	3,650.7	4,498.6	1,843.5	2,301.8	2,529.1	3,186.9	780.3	717.4	609.3	795.2
15. Current repairs	23.4	29.0	44.5	81.1	72.1	63.7	14.1	16.1	6.7	8.0
16. Salaries and wages	422.8	535.4	197.1	240.0	133.8	150.3	313.5	389.7	70.4	84.4
17. Welfare expenses	64.7	78.3	45.2	54.4	31.7	21.1	35.4	44.5	10.7	10.0
18. Managerial remuneration	—	—	—	—	0.1	0.1	0.2	0.2	—	—
19. Other expenses	294.9	446.9	159.1	192.6	245.2	349.1	141.8	156.0	77.7	92.2
20. Depreciation	20.0	25.3	107.6	156.2	64.7	75.4	32.1	50.2	8.4	8.0
21. Other provisions	—	—	—	—	—	—	0.5	1.2	—	—
22. Operating profit (12+13)-(14 to 21)	218.1	282.4	598.7	423.1	351.5	350.4	213.9	205.3	94.7	90.0
23. Interest	44.6	68.5	121.5	225.8	151.5	232.5	1.9	0.1	35.7	37.0
24. Tax provision	106.0	131.0	218.0	70.0	43.0	—	132.5	134.9	32.8	27.0
25. Profit after tax (22-23-24)	67.5	82.9	259.2	127.3	157.0	117.9	79.5	70.3	26.2	25.0
Appropriations										
26. Dividends (i+ii)	24.3	28.5	69.7	69.7	27.3	22.5	31.5	45.4	11.1	14.0
(i) Equity	23.6	27.8	67.3	67.3	24.1	19.3	31.5	45.4	9.4	12.0
(ii) Preference	0.7	0.7	2.4	2.4	3.2	3.2	—	—	1.7	1.0
27. Profit retained (25-26)	43.2	54.4	189.5	57.6	129.7	95.4	48.0	24.9	15.1	10.0
Total: Value of production and other income (12+13) or Expenses and appropriations (14 to 22)	4,694.6	5,895.9	2,994.7	3,449.2	3,428.2	4,197.0	1,531.8	1,580.6	877.9	1,089.2
Operational indicators (per cent)										
(a) Net worth/total net assets	12.9	12.1	42.2	37.5	29.3	27.8	25.9	19.7	38.1	34.0
(b) Inventories/net sales	36.1	40.7	49.3	46.5	19.6	19.2	77.9	102.7	24.8	18.0
(c) Operating profit/net sales	5.1	5.3	23.7	13.6	10.4	8.8	16.1	16.2	11.2	8.0
(d) Operating profit/total net assets	8.3	8.5	20.2	11.7	16.7	13.7	10.9	7.5	19.4	15.0
(e) Profit after tax/net worth	19.8	20.8	20.7	9.4	25.4	16.5	15.6	13.0	14.0	12.0
(f) Equity earning/equity capital	48.1	59.2	61.0	29.7	95.6	71.3	50.5	27.9	46.7	44.0
(g) Equity dividend	17.0	20.0	16.0	16.0	15.0	12.0	20.0	18.0	18.0	18.0
(h) Equity dividend coverage (No. of times)	2.8	3.0	3.8	1.9	6.4	5.9	2.5	1.6	2.6	2.0
(i) Paid-up value per equity share (Rs.)	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
(j) Market price of an equity share (Rs.)	36.00	37.50	33.75	23.00	30.00	30.00	56.00	32.00	35.00	21.00
(k) Gross yield	4.7	5.3	4.7	7.0	5.0	4.0	3.6	5.6	5.1	8.0
(l) Gross fixed assets formation	36.5	22.4	21.6	9.1	28.0	20.2	16.3	53.5	1.6	7.0
(m) Debt/equity	0.10:1	0.22:1	0.09:1	0.07:1	0.67:1	0.79:1	—	0.10:1	0.04:1	—

NOTES: Category not applicable ... Amount/Percentage is negligible —Amount is nil N.Q. Not quoted N.A. Not available

The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of various items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments are sometimes made in other items also. Totals may not add up due to rounding off.

STOCKS

THE WEEK'S PRICE RANGE

(Compiled by
Commerce Research Bureau)

**Bajaj Auto falls
below Rs. 1,000 mark**

Bombay, August 30
The ruling above Rs 1,000-
for the past two years, the
paid-up equity share of
Auto fell below the Rs
mark on August 24 on heavy
following the disappoint-
performance of the company
the year ended June 1982.
the official announcement
working results, the share
plunged to Rs 965 from Rs
Latterly, it closed at Rs
with a net whopping loss of
0.

part from the poor working
s, the other factor prompt-
the liquidation was the alle-
of Piaggio, the former
collaborator, that the com-
copied nearly 40 to 50 de-
modifications introduced by
to for Vespa scooters after
Piaggio-Bajaj agreement ex-
n 1971. When the scrip
shooting up, BSE had
it from 'A' group to
oup with a view to curbing
ive speculative activity. But
after placing the share in
oup, the buying spree had
ued for some more time.

Meanwhile BSE has removed
or prices for ACC, TELCO,
and Baroda Rayon. How-
the floor prices for Century
ata Steel at Rs 720 and Rs
respectively continued to be
e. During the week, selec-
rips improved further while
activity remained modest.
undertone at the close of the
was uncertain. The badla
s were normal.

Following the removal of ACC
price, the quotations moved
Rs 8.50 to Rs 353.50 on
covering and speculative
t. PAL, however, reacted
3.50 to Rs 333 and TELCO
2 to Rs 385. Tata Steel
ed by Rs 7 to Rs 319 on
ed buying support. GSFC
in for influential support
e price improved by Rs 12
433. Garware Nylons was
at Rs 27 on ex-bonus basis
Indian Rayon and Hindus-
tators were quoted at Rs
and Rs 26 on ex-dividend
Reliance moved up by Rs
Rs 157. Standard, how-
ropped by Rs 7 to Rs 290
the announcement of 18
t dividend on the increased
resulting from the bonus
two-for-five.

	Closing quotations 21-8-82	High	Low	Closing quotations 28-8-82		Closing quotations 21-8-82	High	Low	Closing quotations 28-8-82
"A" Group Equity Shares									
A. C. C. (100)	345.00	360.00	344.00	353.50	German Remedies (10)	37.50	37.50	37.00	37.50
Ashok Leyland (10)	36.00	36.50	34.75	35.75	Gokak (10)	15.75	15.75	15.00	15.75
Ballarpur Ind. (10)	42.00	43.00	41.75	42.50	Great E. Shipping (10)	15.75	15.75	14.25	14.25
Baroda Rayon (100)	258.00	262.00	255.50	258.00	Gujarat Alkali (10)	42.50	43.00	42.00	42.00
Bihar Alloy (10)	12.00	12.00	11.50	11.50	Guj. Narmada (10)	11.50	11.50	11.00	11.25
Bombay Dyeing (25)	67.00	69.00	67.00	67.50	Gujarat Steel Tubes (100)	295.00	295.00	295.00	295.00
Century (10)	720.00*	—	—	720.00*	Herdillia Chem. (10)	22.00	22.00	21.50	21.50
Colgate (10)	13.50	14.00	13.75	13.75	Hind Brown (100)	281.25	280.00	275.00	280.00
E. I. Hotel (10)	21.50	21.50	21.00	21.00	Hind Ferodo (10)	35.00*	39.00	37.00	39.00
Garware Nylon (10)	40.00	40.50	39.00	39.00	Hindustan Sugar (100)	211.25	216.25	215.00	215.00
Guj. State Fert. (100)	421.00	437.00	421.00	433.00	Hindustan Spg. (250)	185.00	182.50	182.50	182.50
Gwalior Rayon (10)	49.25	53.00	51.00	52.25	Hoechst Dyes (10)	24.50	24.50	23.75	24.00
Hind. Alum. (10)	31.50	31.00	31.00	31.00	IDL Chemicals (10)	14.75	15.00	14.50	15.00
Hind. Lever (10)	50.00	49.50	49.00	49.50	Indian Explosive (10)	20.50	20.00	19.00	19.25
Hindustan Motor (10)	27.50	28.00	26.00	26.00	Indian Hotels (10)	61.00	62.00	59.00	61.00
Indian Dyestuff (100)	210.00	215.00	207.50	212.50	Industrial Cable (10)	30.00*	—	—	30.00*
Indian Organic (10)	23.50	28.50	27.00	27.00	Ingersoll Rand (10)	157.00	163.50	158.00	163.50
Indian Rayon (10)	92.00	97.50	92.00	92.50	J. K. Cotton (10)	14.00	13.50	13.50	12.50
ITC Ltd. (10)	32.00	33.75	31.00	33.75	Jayant Paper (100)	137.50	145.00	140.00	140.00
J. K. Synthetics (10)	59.50	61.50	60.75	61.00	Jyoti (10)	21.50*	21.75	21.50	21.75
Larsen & Toubro (10)	52.25	52.75	49.50	50.25	Kamani Eng. (10)	66.00	66.60	65.00	65.00
Mahindra & Mahindra (10)	42.00	44.00	42.00	43.00	Khand, Ferro (100)	125.00*	—	—	125.00*
Metal Box (10)	12.25	12.75	12.00	12.25	Khatau (100)	205.00	205.00	197.50	200.00
Modi Rubber (10)	28.00	28.50	27.50	28.50	Kirloskar Cummins (100)	585.00	585.00	577.50	581.25
Motor Industries (100)	241.25	245.00	238.75	240.00	Kirloskar Oil (10)	21.50	21.00	20.00	20.75
MRF (10)	23.00	23.00	22.00	22.50	Kobinor Mills (100)	53.00*	52.00	52.00	52.00
Mukand Iron (10)	25.75	26.65	23.00	24.25	Laxmi Vishnu (100)	45.00*	—	—	45.00
National Organic (100)	176.00	179.00	175.00	178.00	Madura Coats (10)	17.25	17.50	17.00	17.50
Nirlon (10)	39.25	39.50	38.50	39.50	Mafatlal Eng. (100)	94.00	99.00	90.00	95.00
Premier Auto (100)	337.50	343.00	331.00	333.00	Mafatlal Ind. (125)	312.50	313.75	310.00	313.75
Reliance Textile (10)	153.50	158.50	152.00	155.50	Mafatlal Fine (100)	167.50	166.25	162.75	165.00
Scindia (20)	12.50	12.75	12.00	12.50	Maharashtra Sugar (50)	36.00	36.00	35.00	36.00
Shriram Fibres (10)	50.50	48.50	47.00	48.00	Mahindra Uginie (10)	41.00	41.50	39.50	41.00
Siemens India (10)	39.00	38.00	37.50	37.50	Morajee (100)	185.00	—	—	185.00*
Sitpur Paper (10)	22.00	21.50	20.50	20.50	Mysore Cement (10)	39.00	38.50	37.00	38.00
South India Viscose (100)	205.00*	205.00	202.50	205.00	National Rayon (100)	330.00	330.00	320.00	320.00
Southern Petro (10)	15.25	15.65	15.25	15.35	New Gr. Eastern (100)	70.00	—	—	70.00*
Standard Mills (100)	297.00	302.00	285.00	290.00	New Stand. Eng. (100)	110.00	110.00	105.00	110.00
Straw Products (10)	40.00	46.50	45.00	46.00	Otis Elevator (10)	29.50	30.00	29.50	30.60
Swadeshi Mills (100)	134.00	135.60	133.00	135.00	Pfizer (10)	22.75	23.00	22.50	23.00
Tata Chemicals (10)	54.00	52.00	50.75	51.75	Phaltan Sugar (50)	26.00*	—	—	26.00*
Tata Eng. & Loco. (100)	370.00	404.00	376.00	385.00	Podar Mills (10)	5.50*	—	—	5.50*
Tata Oil (25)	5.25	54.00	51.50	54.00	Polychem (50)	49.00	50.00	47.00	49.00
Tata Steel (100)	312.00	325.50	313.00	319.00	Polyolefins Ind. (100)	270.00	270.00	265.00	270.00
Volta (100)	265.00	265.00	260.00	265.00	Premier Const. (80)	90.00	92.00	92.00	92.00
Zenith Steel pipe (10)	43.00	43.00	41.75	42.50	Raghuvanshi (100)	122.50*	—	—	122.50*
Zuari Agro (10)	20.25	21.00	20.00	20.50	Rallis India (100)	182.50	185.00	180.00	185.00
					Raymond Wool (10)	38.00*	37.00	36.00	36.00*
"B" Group Equity Shares					Rohit Pulp (100)	150.00*	—	—	150.00*
Ahmedabad Advance (100)	250.00	250.00	240.00	250.00	Sandoz (10)	27.00	27.00	26.25	26.75
Ahmedabad Elect. (100)	98.00	99.00	93.00	99.00	Sandvik Asia (100)	325.00	327.50	315.00	327.50
Alkali & Chem. (10)	115.25*	—	—	115.25*	Saurashtra Cement (100)	132.50*	—	—	132.50*
Amar Dye Chem. (100)	135.00	135.00	130.00	132.50	Shri Dig. Cement (100)	280.00	280.00	257.50	280.00
Andhra Valley (100)	88.00	92.00	89.00	91.00	Shree Niwas (100)	75.00*	—	—	75.00*
Asian Cables (100)	145.00	—	—	145.00*	Shree Ram (100)	55.00	—	—	55.00*
Assoc. Bearing (100)	385.00	381.25	380.00	380.00	Simplex (50)	60.00*	60.00	59.00	60.00
Auto. Products (10)	12.75	12.75	11.75	12.25	SLM-Maneklal (100)	185.00*	175.00	172.50	172.50
Bajaj Auto (100)	175.00	1000.00	960.00	980.00	Special Steels (100)	81.00	—	—	81.00*
Bajaj Elect. (100)	157.50	162.50	156.25	162.50	Stretch Fibres (10)	9.00	—	—	9.00*
Bayer (India) (100)	215.00	222.50	211.25	217.50	Surat Electric (100)	104.00*	—	—	104.00*
BASF (10)	37.50	39.00	38.00	38.00	Swadeshi Polytex (10)	14.00	14.25	13.25	14.25
Best & Crompton (10)	40.00	40.00	37.75	38.50	Swan Mills (100)	135.00	137.50	135.00	135.00
Bhadrachalam Paper (10)	14.50	—	—	14.50*	Synthe & Chem (100)	85.00	84.00	79.00	81.00
Bimetal Bearings (10)	26.75	27.75	26.75	27.75	Tata Hydro (100)	110.00*	92.00	91.00	92.00*
Blue Star (10)	37.50	38.50	36.50	38.50	Tata Mills (25)	18.00*	18.00	17.00	18.00
Bombay Burmah (25)	46.00	45.50	45.00	45.50	Tata Power (100)	104.00	106.00	101.00	106.00
Bombay Oxygen (100)	117.50*	120.00	117.50	120.00	Tata Yodogawa (100)	132.50	—	—	132.50*
Bombay Suburban (100)	137.50	137.50	137.50	137.50	Tata Finlay (10)	10.75	11.75	11.00	11.75
Cadbury (10)	23.00	23.00	22.25	22.50	Texmaco (10)	43.50*	—	—	43.50*
Camphor Allied (100)	185.00*	—	—	185.00*	United Carbon (100)	102.50	102.50	100.00	100.00
Ceat Tyres (100)	202.50	202.00	200.00	202.50	Vulcan Laval (10)	31.50	31.25	30.25	30.50
Central Ind. Spg. (50)	44.00	44.50	42.50	42.50	Walchand Nagar (10)	26.50	27.00	26.50	27.00
Century Enka (100)	610.00	610.00	610.00	610.00	Warner Hind. (10)	22.50*	23.00	21.75	23.00
Chemical & Fibres (10)	18.75	18.75	18.25	18.25	West Coast Paper (100)	90.00	—	—	90.00*
Colour Chem (100)	190.00	190.00	190.00	190.00	Wimro (10)	11.00	11.00	10.65	11.00
Corom. Fert. (10)	23.00*	24.25	23.00	23.50					
Crompton Greaves (100)	337.50	340.00	335.00	340.00					
Cyanamid India (10)	27.00	27.75	27.00	27.00					
Dawn Mills (50)	56.00	—	—	56.00*					
Elecon Eng. (10)	33.50*	—	—	33.50*					
Empire Ind. (15)	18.00	—	—	18.00*					
Ennore Foundries (10)	39.50	40.00	40.00	40.00					
Exports (10)	38.00	38.00	37.00	37.50					
Ferro Alloys (100)	195.00	205.00	200.00	205.00					
FGP (10)	15.00	14.75	14.00	14.00					
Finlay (100)	75.00	75.00	70.00	70.00					
Gammon India (10)	14.00	14.00	13.75	14.00					
Garware Paints (10)	18.25*	19.00	19.00	19.00					

Notes: Figures within brackets indicate the paid-up value of shares. *Ex-dividend. cd-Cum-dividend. sr-Rs-right. Cr-Cum-right.
(a) An asterisk mark after the quotation indicates the closing prices of the last official trading and not of the date indicated in the columns.
(b) The dash (—) in the columns for 'High' and 'Low' mean that no official trading in the share had taken place during the period under report.

NOTICE**FIT TIGHT NUTS AND BOLTS LIMITED**

It is hereby notified for the information of the public that FIT TIGHT NUTS AND BOLTS LIMITED, old Ashram, Andheri-Kurla Road, Andheri, Bombay-400 093 have applied to the Central Government for re-endorsement of enhanced manufacturing capacity in terms of Press Note No. 10/97/81-LP dated 21-4-1982 from the Ministry of Industry.

- (i) Name(s) of person (s) : FIT TIGHT NUTS AND BOLTS LIMITED. Old Ashram, Andheri-Kurla Road, Andheri, Bombay 400 093.
body corporate owning the undertaking
- (ii) Capital structure of the applicant undertaking : Authorised capital Rs. 2,00,00,000/-
: Issued, Subscribed and Paid-up
Equity Rs. 1,34,40,000/-
: Preference Rs. 12,00,000/-
Rs. 1,46,40,000/-
- (iii) Details of the re-endorsement of capacity :
a) Name of goods : High Tensile Bolts, Nuts and Socket Head Cap Screws
b) Existing licensed/registered capacity : 3,050 M.Tons per year
c) Actual enhanced manufacturing capacity : 4,130 M.Tons per year
d) Excess manufacturing capacity for the endorsement of which the application is made : 1,080 M.Tons per year
e) Total manufacturing capacity after re-endorsement : 4,130 M.Tons per year
- (iv) Location of the project : The application is for re-endorsement of enhanced manufacturing capacity at the existing location viz. Old Ashram, Andheri-Kurla Road, Andheri, Bombay 400 093.
- (v) Brief outline of the cost of the project : Not Applicable, as the proposal envisages only re-endorsement of the manufacturing capacity already installed.

2. Any person interested in the matter may, if he so desires, intimate his views on the proposal to the Central Government in the Department of Company Affairs within 14 days from the date of publication of this Notice indicating the nature of his interest therein.

For FIT TIGHT NUTS AND BOLTS LIMITED

SD/-

LALDAS JAMNADAS VORA
CHAIRMAN AND MANAGING DIRECTOR

Dated This 30th day of August 1982.

THE KESAR SUGAR WORKS LTD**NOTICE**

It is hereby notified for the information of the public that THE KESAR SUGAR WORKS LIMITED proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities. Brief Particulars of the proposal are as under :—

- i. Name of body corporate : THE KESAR SUGAR WORKS LIMITED
owning the undertaking
- ii. Capital structure of the applicant undertaking :— (Rs. in lakhs)
A : Authorised Capital 270.00
B : Issued, Subscribed and paid up Capital : 101.13
- iii. Details of the proposed substantial expansion of existing activities :—
a. Name of Goods : Hydroquinone (Manganese sulfate Monohydrate will be a by-product)
b. Capacity before expansion : 12 Tons/Year
c. Expansion proposed : 108 Tons/Year
d. Location of the Project: At the applicant's existing Chemical Factory at Goregaon, Bombay 400 062.
e. Brief outline of the cost of the project, the scheme and sources of finances : The Capital cost of the project is estimated at Rs. 35 lakhs which is proposed to be financed partly from Company's own resources and partly by borrowing from Financial Institutions.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of his interest therein.

For THE KESAR SUGAR WORKS LIMITED

K. D. SHETH
Secretary

Dated: 30th August, 1982

Registered Office

Oriental House,
7, Jamshedji Tata Road,
Churchgate Reclamation,

Sr:

Market Gossip

Gold, silver glitter again

GOLD and silver prices are showing an upward trend in the world markets. On August 24 the yellow metal jumped in New York above \$400 for the first time since January, with the actual price quoted on the Commodity Exchange in New York for delivery this month being \$403.90. Trading was also very active and contracts totalled about 7.5 million ounces. Since then gold has risen to \$435. However, the more interesting rise is that of silver which, on August 23, was quoted in London at \$8.08 an ounce and on New York Commodity Exchange at \$8.01. This was the first time trading had taken place in silver above \$8 an ounce level since February. In between the price had dipped to below \$5 an ounce just as gold's price had also crashed below \$300 an ounce.

Will silver prices shoot up further? The chances are they will advance but not to the record level of \$50.30 recorded on January 21, 1980. But some point out that in 1979 the white metal after reaching the level of \$8 in late 1979 never looked back till it reached its record price. No bull subscribes to this view. But there seems to be a rising demand for silver. This is the reason why for the first time J. Aron started marketing silver bullion made by Handy and Harman to the public through banks, brokerage houses and other retail dealers. Handy and Harman is a leading fabricator of silver and other precious metals but had never entered the silver bullion market. Its chairman, Mr. M. H. Townsend, has commented that, until a few months ago, they thought that 1979-80 'boom and bust' in silver had ended the public's interest in the metal as an investment for a long time. Now his company had become aware there was again a rising demand for silver from all kinds of people. Observers of the behaviour of gold market traced the rise in the gold prices mainly to lower interest rates in the US and the weakening of the dollar in world markets. Many expect that interest rates in Europe, apart from France, will decline and this can be expected

to strengthen further the gold prices. Prime bank rates in the US dropped to 13.5 per cent on August 23, the lowest since October 1980. The failure of a large number of banks in the US has also made many to seek the safety of gold investments.

Ship for phosphoric acid

LARGE imports of phosphoric acid are being made by us for the increasing production of phosphatic fertilisers. Current imports of phosphatic acid are of the order of 6.5 lakh tonnes and by 1984 these imports are expected to rise to one million tonnes. But strangely we had no ship of our own to transport this phosphoric acid and we had to depend on foreign ships for the imports. This despite the fact there has been considerable diversification in our shipping. For the first time now an Indian shipping company, namely, Chowgule Steamships Limited, will bring in part of this phosphoric acid. One of its ships, 18,000 dwt **Maratha Elegance** built in 1975 is now being converted into a phosphoric acid carrier, and the company has been assured by the fertiliser industry of the continuous employment of this ship for a minimum period of five years. To meet the cost of conversion the company has raised a loan of Dutch Guilders 27.750 million about Rs 10 crores from Amsterdam Rotterdam Bank and the conversion contract has been given to a Netherlands shipyard. The converted ship is expected to be put into operation by March next year.

Maharashtra acquires two textile mills

THE Maharashtra Government has acquired two textile mills through an ordinance promulgated on August 24. The government would pay Rs 20 lakhs for the acquisition of Vijay Manufacturing Company Ltd, Badnera and Rs 120 lakhs for Western Indian Spinning and Manufacturing Company Ltd, Bombay. The managements of these com-

panies had been taken over by the Government of India in 1974 and 1977 respectively. Both the companies had gone into liquidation. In Vijay Manufacturing Company, during the period of the private sector management all the looms and part of spinning machinery had been removed without replacement. In regard to the undertakings in Bombay owned by Western India Spinning and Manufacturing Company, there was a serious fire in October 1973, destroying more than 80 per cent of the spinning machinery. This led to imbalance in the machinery, which was partly restored by the erstwhile management by installing 14,000 new spindles, as against required restoration of about 50,000 spindles.

The Government of Maharashtra has sunk Rs 140 lakhs and the banks Rs 245 lakhs in the form of cash credit limits against the guarantee of the Government of Maharashtra.

Stock exchange at Pune

THE Pune Stock Exchange commenced functioning with effect from August 16, 1982. According to Mr M. S. Raje, the newly-appointed secretary, the stock exchange is scheduled to be formally inaugurated in September by the Union Finance Minister, Mr Pranab Mukherjee. About 40 brokers, of whom 25 are full-fledged and the rest representative brokers, have been approved by the Pune Stock Exchange, which would be located at the premises of the Bank of Maharashtra on Bajirao Road.

Uttar Pradesh Stock Exchange

A STOCK exchange at Kanpur, known as the Uttar Pradesh Stock Exchange, has started operations from August 26, 1982. The stock exchange, which has already enrolled more than 300 members, will be equipped with an electronic board exhibiting market price of different scrips. The response has been encouraging.

(UNDER RULE 4A OF THE MONOPOLIES AND
RESTRICTIVE TRADE PRACTICES RULES 1970)

1. IT IS HEREBY NOTIFIED FOR THE INFORMATION OF THE PUBLIC THAT ALTA LABORATORIES PRIVATE LIMITED, HAS SUBMITTED APPLICATION DATED 29TH JUNE, 1982 TO THE CENTRAL GOVERNMENT FOR RE-ENDORSEMENT OF LICENSED CAPACITY OF ITS ASPIRIN PLANT, AS STATED HEREINAFTER. BRIEF PARTICULARS OF THE PROPOSAL ARE AS UNDER :—

- | I) Name of body corporate :
owning the
undertaking | ALTA LABORATORIES
PRIVATE LIMITED | | | | | | |
|---|--|---|--------------------------------|---|---------|--------------|--------------|
| II) Capital structure of
the undertaking as
on 31st December, 1981 : | The Capital Structure of the
Company as on 31st December,
1981 was as follows :—
Authorised
Capital: Rs. 1,00,00,000
Issued,
Subscribed &
Paid-up
Capital: Rs. 80,00,000 | | | | | | |
| III) Details of proposed
application for
re-endorsement of the
existing licensed
capacity — | | | | | | | |
| A) Name of new goods :
to be produced,
supplied, controlled
or distributed or of
new services to be
rendered | Does not apply | | | | | | |
| B) In the case of
re-endorsement of the
existing licensed
capacity — | | | | | | | |
| i) Name of the goods: | Aspirin | | | | | | |
| ii) Capacity before
re-endorsement | (In response to the press note
(No. 10/97/81—LP dated 21st | | | | | | |
| iii) Capacity after
re-endorsement | (April, 1982 issued by the minis-
(try of Industry announcing meas-
(surs for increasing utilisation of
(industrial capacity, the company
(has submitted application for re-
(endorsement of the licensed cap-
(acity of its Aspirin plant as de-
(tailed below:— | | | | | | |
| | <table> <tr> <th>Name of
goods</th><th>Annual
Licensed
capacity</th><th>Annual
capacity
after
reendorse-
ment</th></tr> <tr> <td>Aspirin</td><td>1120
M.T.</td><td>1760
M.T.</td></tr> </table> | Name of
goods | Annual
Licensed
capacity | Annual
capacity
after
reendorse-
ment | Aspirin | 1120
M.T. | 1760
M.T. |
| Name of
goods | Annual
Licensed
capacity | Annual
capacity
after
reendorse-
ment | | | | | |
| Aspirin | 1120
M.T. | 1760
M.T. | | | | | |
| IV) Location of the Aspirin
plant | Khopoli, Dist: Raigad,
Maharashtra State. | | | | | | |
| V) Brief outline of the
cost of the project,
the scheme and source
of finance | Does not apply | | | | | | |

2. ANY PERSON INTERESTED IN THE MATTER MAY MAKE A REPRESENTATION TO THE SECRETARY, DEPARTMENT OF COMPANY AFFAIRS, GOVERNMENT OF INDIA, SHASTRI BHAVAN, NEW DELHI, WITHIN 14 DAYS FROM THE DATE OF PUBLICATION OF THIS NOTICE, INTIMATING HIS VIEWS ON THE PROPOSAL AND INDICATING THE NATURE OF HIS INTEREST THEREIN.

ALTA LABORATORIES PRIVATE LIMITED
Sd/- J. R. DHOTE
MANAGING DIRECTOR

DATED THE TWENTYSIXTH DAY
OF AUGUST, 1982.

Registered Office:
'ALTA BHAVAN',
532, Senapati Bapat Marg,
Dadar, Bombay-400 028.

B10459(X)

* The research work of the Bureau is organised through these nine Divisions:

- (1) Agriculture,
- (2) Industry,
- (3) Corporate Sector,
- (4) Regional Economics,
- (5) Banking and Finance,
- (6) International Economics,
- (7) Unorganised Sector,
- (8) Science and Technology, and
- (9) Special Studies.

- Each Division is manned by experts who have specialised in their respective subjects.

* Over the years the Bureau has built up a comprehensive economic data system which is the only one of its kind in the country today.

* Through its studies published in the "Commerce" weekly and its special numbers, the Bureau has established a high reputation for itself.

* Its exclusive and prestigious "Economic Monitoring Service" is subscribed to by some of the foremost organisations in the public and private sectors.

* A notable feature of this service is that once a week it provides the latest information on the fluctuations in the value of important world currencies such as dollar, pound sterling, D-mark, yen and franc as also the likely fluctuations in their values depending on the world economic and political developments.

All enquiries may be addressed to :
The Director

**Commerce Research Bureau
N.K.M. International House
178 Backbay Reclamation
Bombay-400 020
Phone : 241423**

COMMODITIES

Mixed trend in yarn

Bombay, August 30

A mixed trend prevailed in the local yarn market during the last week. While the price of 150D acetate decreased by 55 paise to Rs. 50.11, the prices of 150D NRC and 120D NRC decreased by Rs. 1.37 and Rs. 2.21 to Rs. 56.17 and Rs. 59.74 respectively. The prices of 150D CR, 20D CR and 100D SIV, however, remained unchanged at Rs. 54.23, Rs. 58.37 and Rs. 69.38 respectively,

Castor oil up

Bombay, August 30

Castorseed and its oil displayed divergent trends in the oilseeds market last week. The former declined on discouraging advices from producing centres while the latter picked up on export inquiries. Castorseed Madras small and Kanpur bold eased by Rs. 4 each to Rs. 346 and to Rs. 336 per 100 kg respectively. Castor commercial oil moved up by Rs. 1.25 to Rs. 78.50 and castor BSS oil by Rs. 2 to Rs. 84.50 per 10 kg respectively.

Groundnut and its oil lost further ground on good flow of arrivals and slackening demand. Groundnut Karad bold, Saurashtra bold and Saurashtra quality dropped by Rs. 20 each to Rs. 600, Rs. 605 and Rs. 615 per 100 kg respectively. Its oil slipped back further by Rs. 3.12 to Rs. 136.50 per 10 kg. Good monsoon rains in the main groundnut producing area, namely, Saurashtra were also responsible for the sagging tendency in groundnut and its oil.

In limited activity, linseed bold held the ground at Rs. 480 per 100 kg while its oil was offered Rs. 117.52 per 10 kg.

in view of the falling trend in groundnut oil.

Cakes lacked fresh support while sellers were on the forefront. Groundnut expeller yielded Rs. 25 at Rs. 1,675, de-oil Rs. 50 to Rs. 1,350 and cottonseed Rs. 75 at Rs. 1,650 per tonne respectively. Castor, however, advanced by Rs. 25 to Rs. 800 per tonne on scattered fresh support.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:—

27-8-1982 20-8-1982

G. nut Karad bold	600.00	620.00
G. nut oil	136.50	139.62
Cast. Md. Sm.	346.00	350.00
Cast. oil com.	78.50	77.25
Cast. oil BSS	84.50	82.50
Linseed bold	480.00	480.00
Linseed oil	117.52	119.00

Grains quiet

Bombay, August 30

A quiet tendency marked trading in grains in the local market during the week.

In cereals, the Seheri Pissi variety of wheat ruled steady at Rs. 280-350 per quintal. The Sonakalyan variety declined by rupees five to Rs. 248-25 per quintal. Daily arrivals averaged 5,000 bags. Sellers were active. Stockists preferred to unload stocks.

Trading in rice was nominal. Prices ruled steady. Advices from producing centres were steady. Sellers were reluctant to offer goods at

lower rates. Suppliers were hardly 1,000 bags per day. The Surti Kolam variety was traded at Rs. 360-420 per quintal and the Basmati variety at Rs. 800-850 per quintal. Export demand for Basmati was at a low ebb.

In coarse grains, maize eased by rupees two to Rs. 175-178 per quintal. Owing to paucity of arrivals, a steady trend prevailed. Jowar was quoted at Rs. 150-215 per quintal, bajra at Rs. 170-260 per quintal and barley at Rs. 133-134 per quintal.

Among pulses, moong prices dropped sharply on account of arrivals of new crop. Moong (chumki) was offered Rs. 60 lower at Rs. 310-325 per quintal. Sellers were active in view of falling prices at the producing centres. Gram dal eased by rupees two to Rs. 330-355 per quintal owing to slack demand. Arrivals were moderate. Buyers were cautious as advices from producing centres were subdued.

Sugar recedes

Bombay, August 30

Sugar suffered a major setback in the local market with a sharp fall in prices. The price of sugar C-30 grade declined by Rs. 51 to Rs. 445-465 per quintal. The decline in prices was attributed to the Union Government's decision to release 3.30 lakh tonnes of free sale

sugar for September 1982. Local stockists unloaded their stocks in anticipation of further fall in prices. The city stocks improved from 3,390 bags to 5,929 bags at the close of the week. The price of sugar C-30 on August 28, 1982 was lower by Rs. 92 per quintal than that on the corresponding date a year ago.

Gold and silver spurt

Bombay, August 30

The prices of gold and silver spurted in the Bombay bullion market during the past week. Standard mint gold opened at Rs. 1,665 per 10 gms and closed higher at Rs. 1,730 per 10 gms. Ready silver (.999 fineness) opened at Rs. 2,630 per kg and closed at Rs. 2,670 per kg.

Aggregate deposits increase

Bombay, August 30

Aggregate deposits of all scheduled commercial banks increased by Rs. 156.41 crores to Rs. 46,517.79 crores during the week ended August 20, 1982. Bank credit expanded by Rs. 11.77 crores to Rs. 30,343.86 crores. The balances of banks with the Reserve Bank of India (RBI) increased by Rs. 150.17 crores to Rs. 5,089.73 crores while their borrowings from the RBI decreased by Rs. 14.31 crores to Rs. 395.96 crores.

How commodities moved

By Commerce Research Bureau

(Rs per quintal*)

Commodity/Market	August 28, 1982	A week ago
Groundnut (Rajkot)	550	550
Rapeseed (Kanpur)	383	383
Sesamum (Delhi)	660	675
Castorseed (Kanpur)	285	285
Linseed (Kanpur)	436	436
Sugar (Bombay) (a)	455	506
Cotton (Bombay) (b)	3,175	3,175
Jute (Calcutta) (c)	245	245
Aluminium (Bombay) (d)	1,635	1,625
Copper (Bombay) (e)	3,070	3,000
Lead (Calcutta) (f)	1,100	1,130
Zinc (Calcutta) (g)	1,670	1,570
Gold (Bombay) (h)	1,730	1,660
Silver (Bombay) (i)	2,685	2,595
Caustic soda (Bombay) (j)	565	585
Soda ash (Bombay) (k)	235	235

* In terms of 10 gm for gold, kg for silver and candy for cotton

(a) C-30, (b) CJ-73, (c) W-5, (d) Scrap, (e) Wire bar, (f) Ingot, (g) Hard spelter, (h) Standard, (i) .996, (j) Flakes and (k) Tata

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INDIAN ECONOMY: BASIC INDICATORS

By Commerce Research Bureau

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	During the week ended				Week	Percentage variation over		
	Aug. 7, 1982	July 31, 1982	July 10, 1982	Aug. 8, 1981		Month	Year	Two years
Manufactured products	275.5	274.0	273.2	277.2	0.5	0.8	-0.6	4.0
Primary articles	281.1	280.2	277.6	274.7	0.3	1.3	2.3	19.2
Fuel, power, lubricants, etc. ..	455.4	455.4	455.2	437.4	—	—	4.1	28.0
All commodities	293.1	291.9	290.4	289.7	0.4	0.9	1.2	12.6

Money and Banking

	During the week ended				Week	Percentage variation over		
	Aug. 13, 1982	June 6, 1982	July 16, 1982	Aug. 14, 1981		Month	Year	Two years
Money supply (M3) (b)	65,934(a)	65,839	65,819	58,897(a)	0.1	0.2	11.9	34.2
Bank credit	30,332	30,451	30,571	26,814	-0.4	-0.8	13.1	37.8
Aggregate deposits	46,361	46,325	46,045	40,741	0.1	0.7	13.8	38.0
Foreign exchange reserves (a) ..	3,991	3,994	4,046	4,589	-0.1	-1.4	-13.0	-31.9

MONTHLY INDICATORS

	Unit	Latest month	Amount/	Previous	Percentage	Recent trend
		Month	Index	month	variation over	(per cent)(c)
Industrial production (crude index) ..	1970=100	June 1982	148.5(a)	161.9(a)	8.3	6.8
Electricity generation (public utilities)	Million kwh	June 1982	10,453	10,603	-1.6	5.6
Exports	Rs crores	March 1982	563	..	..	..
Imports	Rs. crores	March 1982	1,042	..	..	..
Trade balance	Rs. crores	March 1982	-479	..	..	..
Foreign exchange reserves (a) ..	Rs. crores	July 1982	3,885	3,803	2.2	-18.5
Wholesale price index	1970-71=100	July 1982	290.8	285.4	1.9	1.0
Consumer price index for industrial workers	1960=100	June 1982	470	462	1.7	7.1
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	February 1982	179.6	179.3	0.2	..

ANNUAL INDICATORS

	Unit	1981-82	1980-81	1975-76	1950-51	Percentage variation in 1981-82 over 1980-81	Annual rate of growth(%) between 1975-76 and 1981-82
Population	Crores	69.1(a)	68.4 (d)	60.4	35.8	3.2(g)	2.2(e)(h)
Gross National Product (at market prices)	Rs crores	1,38,000(a)	1,25,744	73,907	9,503	17.5(g)	11.2(h)
Per capita GNP (at market prices)	Rupees	1,997(a)	1,855	1,224	265	14.9(g)	8.7(h)
Real national income (Index)	1970-71=100	144.1(a)	137.9	117.1	48.9	7.7(g)	3.3(h)
Real per capita income (Index)	1970-71=100	112.6(a)	109.9	104.9	73.6	5.3(g)	0.9(h)
Agricultural production (Index triennium ending)	1969-70=100	139.3(a)	135.2	124.8	58.5	15.4(g)	1.6(h)
Foodgrains production	Million tonnes	135.0(a)	130.0	121.0	55.0	18.2(g)	1.4(h)
Industrial production (Index)	1970=100	166.4	154.2	119.7(f)	26.5	7.9	12.2
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.9	30.0	18.6	0.18	36.3	14.0
Electricity generation (public utilities)	Billion kwh	122.9	111.6	79.2	5.3	10.1	7.6
Exports	Rs crores	7,358	6,711	4,043	601	9.6	10.5
Imports	Rs crores	13,110	12,524	5,265	650	4.7	16.4
Trade balance	Rs crores	-5,752	-5,813	-1,222	-49	..	..
Foreign exchange reserves*	Rs crores	3,797	5,316	1,702	911	-28.6	14.3
Money supply (M3) (b)*	Rs crores	62,468	55,451	22,286	2,336	12.7	18.7
Bank credit*	Rs crores	29,642	25,371	10,877	547	16.8	18.2
Aggregate deposits*	Rs crores	43,820	37,988	14,155	881	15.4	20.7
Wholesale price index (average)	1970-71=100	280.2	257.3	173.0	47.5	8.9	8.4
Consumer price index for industrial workers*	1960=100	457	420	286	..	8.8(g)	8.1(h)
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	..	162	93	..	13.3	11.7

Notes: (a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year. (d) As on March 1, 1981 as revealed by 1981 Census. (e) Between 1971 Census and 1981 Census. (f) Figures relate to 1975 and 1950 respectively. (g) Percentage variation in 1980=81 over 1979=80 (h) Annual rate of growth (%) between 1975=76 and 1980=81.

* Financial year-end data ** Calendar year-end data (—) = Nil or negligible (..) = Not available

LETTERS

Savings bank deposits

SIR, — Some banks have increased the minimum balance to be retained in savings bank accounts to Rs 500 or even Rs 1,000. This amounts to a forced loan to the banks at a low rate of interest because such a big amount would normally have been invested in a fixed deposit getting a much higher rate of interest.

It also defeats the objective of spreading the banking habit by encouraging a large number of people to open savings bank accounts and use cheques for payment.

On referring the matter to the Indian Banks Association, we are informed that, "The Association has recommended to its member banks certain minimum balances to be maintained for savings bank accounts. While cheque operated accounts should have a minimum balance of Rs 100, non-cheque operated accounts should have a minimum balance of Rs 5. However, the member banks of the Association have the discretion to prescribe higher minimum balances than those recommended by the Association as stated above."

Instead of taking a passive role, Indian Banks Association should gear itself to the task of galvanising the banking industry by removing the difficulties of the banking public. If it fails, the Reserve Bank should issue mandatory directives in public interest.

K. M. Sundaram

Hon. Secretary, All-India Bank Depositors' Association (Bombay Branch),
BOMBAY.

Bihar Press Bill

SIR, — The Bihar Press Bill is really an attack on the public because it will prevent journalists from performing properly their duty of informing and educating the public on what is going on. The existing laws of the land are more than sufficient to bring to book erring journalists if they indulge in scurrilous or inflammatory writing. A strong and just government is not afraid of the press, but considers it a powerful ally in governing the country by mirroring public opinion and exposing its own weaknesses and shortcomings, so that it can perform better by correcting itself. Moreover, politicians do not remain in power for ever. When they are out of power, the press will be their only ally in voicing their views.

Even an autocrat like Frederic the Great of Prussia, when he saw people craning their necks to read a poster caricaturing him which had been pasted too high on the wall, ordered it to be brought down so that they could read it easily!

There are proposals by some journalist associations not to report assembly proceedings nor functions attended by ministers as a protest against the bill. These are not correct ways of tackling the situation as they deprive the public of what they should know. The best way to bring politicians to their senses is to report the number of people present at every function addressed by them. Most of them are poorly attended, and politicians dread being exposed to public view in this particular matter.

M. R. Pai

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*Irrigation potential of 95 lakh hectares created through State works in 1981-82.

*69,000 small industrial units set up and 7.30 lakh persons provided employment.

*Generation of 11,348 million units of power in 1981-82—a 12 per cent increase.

*Electrification of 5,153 villages and 2,531 Harijan bastis.

*Target of a primary school at every 1.5 km. and a junior high school at 3 km.

*Primary health sub-centres to be set up soon on every 5,000 population.

*Harijan hostel in each district : free education and stipends.

*Construction of 40,498 drinking water wells, 5,778 hand pumps and 2,485 diggies.

*Rs. 35.40 crores earmarked for National Rural Employment Programme.

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COMMERCE

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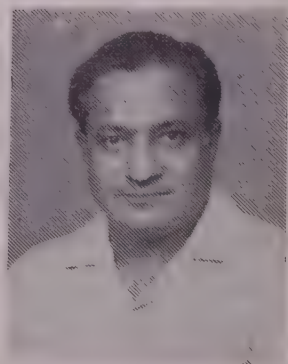
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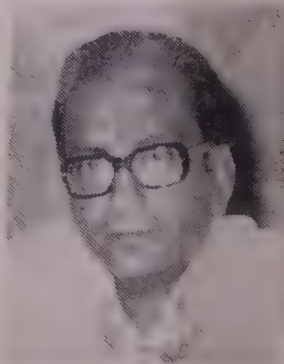
PEOPLE



Sreenivasan



Iyengar



Das



Arunachalam



Chawla

Mr P. B. Sreenivasan, executive director of Indian Overseas Bank, a nationalised bank, has been promoted as chairman and managing director of the bank with effect from September 1, 1982. He has been associated with this bank for the past 35 years.

Mr M. K. Das has been appointed director (marketing) of Bharat Petroleum Corporation Ltd.

Mr A. M. M. Arunachalam, chairman, Murugappa group of companies, Madras, has been re-elected president of the Hosur Industries Association for 1982-83. Mr D. Jayavarthanavelu of Lakshmi Automatic Works Ltd was re-elected vice-president.

Mr A. K. D. Iyengar has been appointed general manager (exports) of Besta Cosmetics Ltd, a Balsara group company.

Mr Charansingh Chawla has been elected president of the Federation of Gujarat Mills and Industries. Mr Chawla is the managing director of Star Steel Private Ltd.

Mr B. L. Khurana has been appointed chairman and managing director of the New Bank of India in place of Mr R. Srinivasan who has moved to Allahabad Bank in the same capacity.

The tenure of both these incumbents will be for three years with effect from September 6, 1982.

Dr Yoginder K. Alagh has been appointed chairman of Agricultural Prices Commission. Previously he was the director of Sardar Patel Institute of Economics and Social Research, Ahmedabad.

Mr C. C. Patel, secretary to the Union Ministry of Irrigation, has been appointed inter-regional adviser on water resources at the UN headquarters in New York.

Mr M. B. Lal, financial adviser and chief accounts officer of Cotton Corporation of India, has been promoted director (finance).

Dr M. K. Mishra, additional legal adviser in the Union Ministry of Law, will also act as a member of the Forward Markets Commission following the retirement of Mr M. G. Jawle.

Mr R. N. Malhotra, secretary, economic affairs in the Government of India, has been elected to the executive board of the International Monetary Fund. He succeeds Mr M. Narasimhan who will soon take over as Finance Secretary in New Delhi.

THE WEEK

INSAT-1A has been written off by the Indian space scientists as its fuel was exhausted and a vital solar panel could not function since the time the satellite was launched on April 10 last. With the collapse of INSAT-1A, the national hook-up plan for TV also ran into rough weather. ★

The National Textile Corporation has won a Rs 18-crore order for the supply of 30 million metres of cloth to the Soviet Union next year. ★

The Agricultural Prices Commission has recommended a floor price of Rs 15.50 a quintal for sugarcane in the current year. ★

The Indian Oil Corporation has reduced the price of LPG by Rs 3 per cylinder. ★

The Union Finance Ministry has given recognition to the Pune Stock Exchange for five years. ★

The Union Government has decided to allocate the vanaspati industry 70 per cent of its needs of imported edible oils. ★

The Union Energy Ministry has proposed seven statutory changes in the Electricity Supply Act. ★

Fresh talks will be held on the Cauvery waters dispute in Bangalore on September 4. ★

The Union Government has given a year's moratorium on repayments of principal and interest on soft loans made to the shipping industry. ★

India and the United States have signed three agreements to provide \$ 81.05 million as aid to India. ★

The Union Government has fixed the tariff value of free sale sugar at Rs 450 per quintal with effect from September 1. ★

The Union Government has accepted a proposal to set up an additional thermal power unit of 210 mw at Gandhinagar. ★

Wholesale price index

At 293.8, the latest available wholesale price index for all commodities was steady over the preceding week. However, the index showed a rise of 1.1 per cent over the year.

Money easy

Conditions in the Bombay short-term money market were easy as of Monday (September 6, 1982). In the inter-bank call money section, both notified and commercial funds were renewed at four per cent. Fresh money was transacted at four per cent. The market closed at four per cent.

Unchecked cruelty of nature

THE utter helplessness of the country before the wiles of nature has been brought home again by the widespread and prolonged drought, which has marred the prospects of agricultural growth during the year, and the current spate of floods which has laid prostrate the most populous areas of the country. Drought has affected severely Rajasthan, West Bengal, Bihar, Orissa, Gujarat, Maharashtra, Himachal Pradesh and parts of Uttar Pradesh. Now some of these very states have to endure the ravages of the most furious floods. More than two crores of people in Uttar Pradesh and Orissa have been affected while at least 250 persons have lost their lives. Besides these two states, seven persons in Bihar and 41 persons in Madhya Pradesh have died in the flood fury. The extent of actual loss is yet to be ascertained since many of the areas are still inaccessible due to breaches in road and rail links. Heavy rains which lashed the states of Bihar, Orissa and Uttar Pradesh in the past few days have added further to the misery of the affected people.

In Uttar Pradesh the floods in the Ganga and the Yamuna affected as many as 38 districts. The worst affected districts were Ballia, Varanasi, Hamirpur, Banda, Allahabad and Ghazipur. The human toll was 185, besides the loss of 1,000 head of cattle in over 13,000 villages. The floods damaged 21.6 lakh hectares of land including 13.86 lakh hectares of agricultural land, on which the standing crop was destroyed. Over 1.23 lakh houses were damaged. In Bihar the floods in the Ganga submerged Chapra town in waist-deep water. Patna also was threatened where the Ganga was flowing above the danger level but the water receded after submerging low-lying areas in the city. About nine lakh people were affected by the floods in Bihar. Crops and property were damaged in at least 13 districts. The Punpun and Mahananda rivers and their tributaries caused extensive damage. Cracks have developed in 154-km long embankment on the Mahananda as well as on the Gandak river embankment near Dhorahat. Damage was reported in 600 villages in Bhojpur district and 23 villages in Saran district. Samastipur, Patna, Munger and Paschim Champaran districts were also severely affected.

The entire canal system in Orissa is reported to have been destroyed by the floods in the Mahanadi, Brahmani, Rushikulya and Baitarani river systems. Continuous rain and high tides in the sea prolonged the misery as the progress of recession in the water levels was slow. About one crore people — nearly half the population in 20,000 villages of the State — were affected by the floods. Ninety thousand square kilometres of land

in eight districts of the State was inundated. This included 30 lakh hectares of cultivable land. Sixty-four persons were reported dead out of over thousand persons missing. However, only 46 deaths were officially confirmed. The national highway No. 5 between Bhubaneswar and Cuttack was breached at three places. Many towns including Banki, Baudh, Jagatsinghpur and Kakatpur were marooned. Paradip port was inundated with the swirling waters of the Kathjuri river. The situation was aggravated due to heavy discharge of water from the Hirakud dam which was full due to heavy rains in the catchment area. Areas in Malda and Murshidabad districts of West Bengal have also been flooded by the Ganga water. Floods in Bhagirathi have washed away 50 houses in Nadia district.

Rescue and relief measures are in full swing in the flood affected areas. The Uttar Pradesh Government has so far sanctioned Rs 5.2 crores ex-gratia payment to the affected population. An amount of Rs 1.5 crores was also sanctioned to be distributed as distress taccavi loans. The Chief Minister of Uttar Pradesh, Mr Shripat Mishra, announced that recovery of agricultural dues had been suspended where more than 50 per cent of the crops were damaged due to drought or floods. Aerial food packets were dropped on flood-hit areas of Orissa. The Central Government was sending 10,000 tonnes of rice to Orissa to provide immediate relief to the flood victims in the state. This was on top of the allocation of 10,000 tonnes of rice made to the State earlier for public distribution system in September. Andhra Pradesh was rushing 15,000 tonnes of rice to Orissa. About 5,000 tarpaulin sheets were being sent to the state for temporary shelters for the flood-affected people. Forty motor boats were lifted from Gwalior and another fifteen motor boats and 200 life jackets were airlifted from Allahabad to Bhubaneswar. Two IAF helicopters and twenty boats loaned from the army were engaged in relief operation in Bihar. Airforce helicopters air-dropped about ten tonnes of food packets among the flood victims in Bihar. Nearly three hundred army personnel were assisting in relief operations in the flood affected areas.

The continued helplessness before the fury of the weather shows how ineffectual have been the measures of water management. We are neither able to cope with drought nor are we able to check the ravages of floods. Many areas remain cut off for days together. This happens year after year. Why attention is not given to altering this helplessness is not understood. Most of the time the measures adopted boil down to the further centralisation of initiative in New Delhi, where the genuine

needs are very faintly perceived. In this year itself there will be two new New Delhi-based water management organisations — National Water Development Agency — a registered society headed by the Union Minister of Irrigation and the National Water Resources Development Council headed by the Prime Minister. These are in addition to the already existing Central Water Commission and a large number of other organisations concerned with water management under the control of the Central Government.

Unfortunately, floods still remain annual phenomena. Yet there seems to be no preparedness at all. In Orissa, relief work was considerably hampered by the lack of boats which had to be flown from other states including

Madhya Pradesh. It is not known why no boats were available in Orissa which has a long coast line and high navigable rivers. In Orissa until recently even the state capital was not linked to all the district headquarters by all-weather roads. Floods add a new dimension to the bizarre situation of thirty years' development planning leaving the state headquarters physically isolated from the district headquarters. Over the thirty-one year period ending with March 1982 the government invested no less than Rs 11,488 crores on water management (irrigation and flood control) out of a total outlay of Rs 1,21,38 crores. If even then the country's helplessness remained so high, it is necessary to review if the pattern of the projects of water management calls for any modification.

Reshuffling of portfolios

A PRE-CONDITION of democratic society is the changeability of government, which is ensured by the existence of a strong opposition party capable of taking over the reins of power from the ruling party through elections stipulated at stated intervals. In India this vital condition is lacking inasmuch as, although elections are held regularly, there is no viable Opposition either at the Centre or in most of the states capable of wresting power from the ruling party. In such a circumstance the periodical reconstitution of the ministry and the reallocation of portfolios remain the only means to bring about some change in the routine-bound administration and infuse some dynamism in it. To the extent that the party in power remains the same and there is no change in the person of the Prime Minister the change that can be brought about by such reconstitution and reallocation of portfolios is obviously limited. Nevertheless even such a limited change is not to be spurned.

Given the contours of the politics of the ruling party, there was really never any chance for any major shake-up in the composition of the Union Cabinet. Nevertheless when, after the exit of Mr Zail Singh from the cabinet, Mrs. Gandhi allotted the work of the Union Home Ministry to Mr Venkataraman in addition to his existing portfolio of Defence, the expectation was aroused that she might induct some new blood. What is, therefore, notable is that the Prime Minister, Mrs Gandhi, decided not to make any change in her cabinet, not only by not dropping anyone but even through the inclusion of a new face in the cabinet. In the context of the lacklustre performance of the government this failure to induct new blood in the cabinet is bound to be widely regretted. All the new entrants — five ministers of state and three deputy ministers—have been taken at a lower level than that of the cabinet minister. That among the very large number of Congress (I) members of Parliament, Mrs Gandhi could not consider any one fit to be included at the cabinet level is poor advertisement of the quality of persons nominated by the Congress-I leadership to contest election to Parliament and Mrs Gandhi,

as the effective leader of both the party and the government, does not emerge fully unscathed.

The most important tasks before the government — to give an incentive to economic growth and to ensure political stability — remain largely unattended to. It has been given out that the government had been warned at the beginning of the year of the poor prospects of the monsoon this year. It does not appear that necessary follow-up action had been taken to cope with the eventuality. The performance of agriculture this year cannot be very encouraging and the government has already contracted for the import of 2.5 million tonnes of wheat from the USA. The situation is far from comfortable. The sharp rise in the prices of cereals — in just a month the index of cereals wholesale prices rose by 4.1 per cent during the week ended August 14 — presents a threat to the already pitifully low standard of living of the people. The failure of the government is typically illustrated by the fact that while the country has a bumper production of sugar, many fair price shops are going without the supply of sugar so that the people are being handed due slips instead of sugar. Despite the eight-month-long strike in sixty Bombay textile mills, which meant a substantial reduction in textile production, the stocks with the mills at the end of July 1982 (0.89 lakh bales of unsold cloth) do not show any decline, indeed mark a rise compared with the level of 0.71 lakh bales of unsold cloth at the end of July last year — indicating the poor pace of the lifting of textiles by the consumer.

The lack of any serious thought behind the reshuffling was further provided by the re-allocation of portfolios within four days of the reshuffling. This brought evidence of the lack of consultation by the Prime Minister with her colleagues. Indeed the reports said that the reshuffling caught even many ministers unaware and some of the new entrants, not being in the capital, could not even take oath at the appointed time. Why all the hush hush and haste should be there in the matter of a routine job like reshuffling of portfolios has been left unexplained.

Eleventh hour battle for IDA

From HASHMUKH SHAH

TORONTO, CANADA

THE United States found itself isolated at the annual conference of the World Bank and the International Monetary Fund (which began here on September 6) when the combined forces of the President of the World Bank and almost all developed and developing nations decided to revive the dying IDA—the World Bank's soft-loan affiliate—even without American participation. The United States has cut its IDA contribution by nearly 40 per cent and other donor countries were to follow suit as the contribution of other nations are tied to American contribution. But for the first time in the history of the World Bank, other industrialised countries decided that they should do their duty to the poor world irrespective of the American intransigence.

The IDA will raise \$7 billion to finance projects in poor countries over the next two years. This sum included a five billion dollar backlog of unpaid contributions and an extra two billion dollars for 1984. The USA made no promise for its contribution for 1984.

It is noteworthy that the President of the World Bank, Mr A.W. Clausen (who was the President of the Bank of America before he joined the World Bank) led a powerful campaign in favour of IDA in his speech before the 35th Fund-Bank annual general meeting in which 146 nations and leaders of international banking and economic communities have been participating. Mr Clausen said that the IDA was withering away. He bluntly laid the responsibility at the door of the United States for its failure to meet the already made commitments to IDA which gives 50-year loans without any interest to the poorest of the poor countries whose per capita income is below \$600 a year.

Mr Clausen said that IDA had performed the useful task in alleviating poverty throughout the world. It was created in 1960. In 22 years of its existence IDA had committed \$26.7 billion in some 1300 projects in the poorest countries. But in 1981 "we had to slash our IDA programme by 35 per cent. That is

not trimming a programme. That is amputating a programme. And who is an amputatee. Not the IDA the institution. But rather the human individual—multiplied by millions in the poorest developing countries—who is denied IDA assistance to enhance his own productivity, and hence pry himself loose from the choking grip of poverty." Mr Clausen also reminded the rich countries that those who receive IDA aid were "avid customers" of goods produced by rich countries and "important suppliers of many key raw materials."

As a result of Mr Clausen's forceful plea, almost all the donor nations agreed to give the full third yearly amount irrespective of the US behaviour. US has so far not lived up to its full commitment on funding IDA. The American contribution of 3.24 billion dollars for the Sixth Replenishment was stretched by US Congress over four, rather than three years.

Negotiations are to start in November for the next three-year replenishment of IDA, beginning July 1, 1985. The World Bank would like to see the amount go beyond the 12 billion provided for the current Sixth Replenishment. Because of inflation, the new and Seventh Replenishment would have to be some \$15 to 16 billion to match the previous three-year replenishment. The developing countries would like to see it enlarged to some \$18 billion.

The addition of China to the World Bank membership makes that country eligible for IDA funds. And China now wants its share of low-cost IDA aid. This will occur largely at the expense of India, which at one time got as much as 58 per cent of the no-interest IDA loans. That was cut back to some 40 per cent because of widespread feelings that India could afford to take more regular World Bank loans at normal interest rates. Now it is thought India may get only 20 per cent of IDA funds. China will get the same percentage and a larger share will go to the poorest of the African nations.

Before the official meeting of the Fund-Bank started, the group of twenty

four, representing the developing nations, issued a warning, in a communique that 'unless adverse trends in the international economy are reversed the whole international system of trade and finance will collapse'. The Group-24 communique demanded a world recovery programme to stimulate non-inflationary growth in rich and poor countries alike.

The communique issued by the group of 24 not only insisted that the IMF quota—deposits of currencies that can be loaned to developing nations—be 'at least' doubled from the present \$67 billion total but that lending conditions, which they said are now too stringent, should be substantially liberalised.

The United States had drawn expected criticism from the developing countries, including India for the tightness of its purse strings both in aid distribution and in the newly contemplated expansion of resources of the IMF. The Reagan Administration's insistence that tough conditions be attached to lending by the IMF drew sharp rebuke from Mr Pranab Kumar Mukherjee, India's Finance Minister. Addressing the delegates, Mr Mukherjee said: "Mere stringency in domestic policies cannot bring about adjustment. In fact, it may make matters worse by undermining the productive foundations of the economy'.

Addressing the Fund-Bank meeting, the Managing Director of the IMF, Mr Jacques de Larosiere said that he hoped for a final agreement on the amount by which the Fund's resources would be increased by next April even though members have until December 1983 to reach that decision. Ministers of several countries believe that the Fund's resources would be raised 50 per cent from \$67 billion to about 100 billion.

Mr De Larosiere called on commercial banks not to cut back on their lending to developing nations. He added that the agency may borrow from some of its richer member governments next year, a practice the Fund has followed to replenish resources since 1980. He is promoting a doubling of Fund quotas.

LETTER FROM LONDON

Record grain harvest in century

From STEPHEN HUGH-JONES

BRITAIN'S farmers should be smiling all the way to the bank this year. Almost certainly, they have just gathered in a record harvest—20 million tonnes of grain.

It may even be enough to make the country a net exporter of grain, for the first time, one would guess, since the early nineteenth century.

The paradox is that this is good news for really no one but the farmers. Europe is awash with grain. The EEC price system guarantees the farmers a high price for all they produce. The surplus has to be bought up at EEC expense, and stored, or else dumped on world markets at far lower prices. The EEC — i.e., the taxpayers of Europe — makes up the difference to the shipper. The farmers' gain is the taxpayers' loss.

Yet they cannot be blamed. They are offered a good price for grain, so they respond to it; in Britain at least, with great and ever increasing efficiency.

Ten years ago, Britain's record harvest was about 15m tonnes of grain. Average wheat yields were a bit over 4 tonnes per hectare. Today the average is well over 5 tonnes, and many farmers on good land this year have secured 8 or 9 tonnes.

Overall, taking all crops into account, British farmers have tended to increase their output by 2 or 3 per cent a year in recent years, while the cultivated area is shrinking slightly, thanks to the spread of towns, roads, etc.

Allow for the fall in manpower, and farm productivity per man is rising at about 5 per cent a year — far in advance of the figure recorded even by successful bits of Britain's manufacturing industry.

The question is: who needs all this food? Britain's farmers reply that the country is far from self-sufficient overall, so if Europe has surplus food they can't be blamed for it.

This is a narrow view. The aim of self-sufficiency for Britain is not a very much more sensible one than, say, self-sufficiency for London. If there are other countries that can produce food more efficiently—New Zealand's dairy farmers, for instance—it would make more sense to let them do so, while the British concentrated on the industrial goods

Farm productivity per man is rising at about 5 per cent a year — far in advance of the figure recorded even by successful bits of Britain's manufacturing industry.

that cannot conceivably be produced in New Zealand.

The free-trade truths of Adam Smith still apply.

The fact is that Britain's success as a farming nation is the product of a gross distortion of the market. The British price for wheat these days, under-written by the EEC price guarantee, is around £112 per tonne. The world price is about £50 lower.

The British farmer is encouraged to produce wheat at uneconomic cost because he gets a grossly uneconomic price for it. He can afford the massive inputs of fertiliser, diesel fuel, herbicide, insecticide, machinery etc etc that go into British farming because, at the end, the EEC taxpayer is ready to pay for them.

It is arguable that Britain's high-input, high-output agriculture is going in the wrong direction, and that true economic efficiency would prefer lower inputs with lower yields.

There is no prospect that that is, in fact, what will happen. On the contrary, EEC farm policy makes it

likely that the whole of western Europe will take the same route as Britain (which is by no means the leader — Dutch agriculture is still more of a force-fed high-technology business).

And the question then is: till when? Europe already has intermittent or in some cases endemic surpluses of grains, milk, wine, sugar and fruit — surpluses not simply in the sense that it produces more than it eats, which is still truer of America, but in the sense that it does so thanks to anti-economic pricing.

How long will the vast non-farming population put up with the endless subsidisation of ever greater surpluses? Till now, the farm lobbies, far more powerful than the mere number of European farmers would suggest, have been brilliantly successful in sabotaging any attempt to restore commonsense to EEC farm policy.

There have been some modest reforms, which put slightly more of the burden of overproduction onto the farming community itself. But radical reform has been promised for the past fifteen years, and is still as far away as ever. No government dares to antagonise its farmers.

The odds are that this will continue to be the case. Brussels will continue to pour out its cornucopia of subsidy — as will the national capitals, which, whatever EEC rules may say, have ample means of adding further subsidy of their own under one guise or another.

This is as true in Britain as elsewhere, and Mrs Thatcher's zeal for letting market forces rip does not (surprise, surprise) extend to farming. Britain's farmers will continue to laugh their way to their way to the bank, jingling the money of its 97 per cent of non-farmers in their pockets.

EDITOR'S NOTEBOOK

Vadilal Dagli

Gold rides again

A GAIN gold has become the most precious asset for international investors and speculators. The yellow metal which had touched the bottom level of below \$300 an ounce only recently rose on September 7 to over \$500 an ounce in Hongkong and in other centres. The reason for this surge is the fear of collapse of some major banks who have lent massive amounts to countries like Mexico, Argentina, Brazil, Peru, Poland and Romania. The debt of Mexico is about \$80 billion to both commercial banks and governments. When Mexico nationalised the country's banks on September 1, international banking community felt the tremors of the coming financial catastrophe. Soon after the announcement of the nationalisation of Mexican banks came the rumours that Argentina, Brazil and Peru would not only nationalise their banks but also repudiate their debts. So on September 2, prices of gold in New York and other financial centres began to rise. On that day alone gold prices rose by nearly \$25 to \$438 in London. The next day, on September 3, prices of gold jumped further to \$457 and then within the next three days they crossed the \$500 mark. An American gold dealer said that rumours about Argentina and other Latin American countries repudiating their debts "touched off a panic in the bullion market". Investors believe that the repayment problems of these Third World countries could shatter the stability of the international banking system. So it is wiser to withdraw money from the banks and buy gold as a hedge against the coming banking catastrophe.

The gold price spurt has also posed serious questions about the international monetary system which is now at a breaking point. It is not accidental that the United States which opposed at the Toronto IMF-World Bank annual meetings this week an increase in the lending funds of the IMF is simultaneously pleading for the creation of a new \$25 billion reserve and within the IMF to combat, what the United States representatives called, "a generalised world-wide financial crisis". This also gave a hint to investors and speculators that the international banking system was really in trouble. In the United States itself more than 50 banks have crashed. Of course these are minor banks, but this gives an indication of the state of health of the banking system in the Western world. Whether the world

gold markets will be able to hold on to the \$500 level is not yet clear. There seems to be no unanimity of view among gold experts.

Our MPs

HOW our MPs at times misuse the forum of the Consultative Committees of Parliament was recently revealed when an MP attached to Consultative Committee of the Ministry of Tourism and Civil Aviation sent to the ministry this suggestion: "Please take all members of the committee on a world tour of about 30/40 days to project our civilisation, cultural programmes and thus attract foreign exchange." The ministry gave a diplomatic answer to this fantastic suggestion: "While appreciating the Hon'ble Member's suggestion, it may be mentioned that the world tour of MPs to project our civilisation, cultural programmes would more appropriately fall within the purview of the Ministry of Education (Department of Culture)." The MP was perhaps prompted by the fact that in the mid-70s all members of the Consultative Committee of Parliament of the Tourism Ministry were given a free trip by an Air-India's inaugural flight to Sydney. The Government of India took the MPs to two other Australian cities also at state expense! Such questions and answers are not publicised in the press which normally give the summing up by the ministers of the issues that the MPs raise at the meetings. It is time that the ministers released to the press all questions that the MPs send to them, so that their electors—the citizens of India—know about the quality of their performance.

Khadi not "Industry"

THE government has taken the major step of excluding Khadi and Village Industries Commission from the definition of 'industry'. The Industrial Disputes Amendment Bill also excludes agricultural operations, hospitals and dispensaries, educational institutions and institutions which are wholly and substantially in charitable or philanthropic service from industrial relations laws. Khadi and Village Industries Commission is not an 'industry' but a movement which is for the economic uplift of the poorest of the poor. Those who joined the Khadi and Village Industries Commission should not agitate for more and more facilities like other workers, but should try to help the artisans who are not organised and for whom the village industries are run.

A question might be raised that if the village industries cannot permit trade union activity, why should they exist at all. The answer to this legitimate question is that their status is very much like that of hospital. If you go on a strike in a hospital or demand unreasonable wages, the hospital will be closed down. It is not a business undertaking. Its aim is not profit but service. Its support comes from charities and other subsidies. The same is true of village industries. So, the government has been wise in excluding Khadi and Village Industries Commission from the definition of 'industry'.

Crime of the cane

LEADING British lawyers have complained to the European Commission for Human Rights that the continued practice of corporal punishment in British schools violated the European Convention on Human Rights. The lawyers also said that physical punishment to school children was degrading and therefore unlawful. They have taken up the case of a 16-year old girl who was beaten by her headmaster after being caught smoking outside the school. The lawyers informed the European Commission that the girl (whose name is being withheld) was caned on the palm. The girl said as a result of the injury caused by caning she could not use her hand for several days. British lawyers said that the United Kingdom Government was guilty of such breaches.

The Government has decided to fight the lawyers but its decision is not easy. The United Kingdom is the only country in Europe to continue the practice of corporal punishment in schools. The lawyers represented that an interesting legal aspect was that the corporal punishment in the United Kingdom schools is an administrative practice and this is why it deserved much more serious consideration by the European Commission than a single violation would. Here in India the practice of corporal punishment has again been revived not by the old schools but the so-called English medium schools where young children are at times given severe corporal punishment for making them "more disciplined and presentable". Because of their obsession of educating their children not in schools of their mother tongue but in English medium schools, parents feel so helpless that they just do not listen to the complaints of their children when they report about the punishment which should not be given to even animals, let alone children.

INDIA AND MAURITIUS

Relations on new footing

By KHER JAGATSINGH

MRS Indira Gandhi's visit to Mauritius did not last for more than 48 hours but it proved quite successful for both Indian and Mauritian governments. The invitation to her was sent soon after the new government came to power and Mrs Gandhi's acceptance was relayed back to Port Louis with unprecedented alacrity. Although Mauritius was still under the trauma of almost unparalleled electoral results which eliminated the opposition completely, Mrs Gandhi's visit was welcomed by every section of the population.

The relations between Mrs Gandhi and the former Prime Minister, Sir Seewoosagur Ramgoolam, had gone awry and had stayed as such for quite some time although the once absolutely cordial relations between the two countries were the handiwork of both Mrs Gandhi and Sir Seewoosagur Ramgoolam. What soured the relations in fact was the Diego Garcia issue. It is now clear that the Ramgoolam government did not fully understand how the average Indian was psychologically affected by the Diego Garcia situation. Mauritius failed to realise that India genuinely feels she is surrounded by enemies, potential enemies or fickle friends.

The development of the Diego Garcia military base complicates the Indian situation and makes the Indian people still more jittery about their security. What is more is the decision of the Americans to equip the Diego Garcia base with their latest and most sophisticated weaponry. And somehow the Mauritius Militant Movement (MMM) had shrewdly conveyed the impression that they were totally anti-American and absolutely against the militarisation of the Indian Ocean. In addition, the MMM made no bones about its intention to insist upon the retrocession of Diego Garcia to Mauritius. In the meantime the Mauritius Labour Party did not take position on those vital issues and with Pakistan's decision to acquire extremely sophisticated military equipment

from the US, the government of Mrs Indira Gandhi moved closer to the MMM and, when the latter swept the polls in June last, the visit to Mauritius of the Indian Prime Minister became a natural expectation.

Same language

It is now evident that the new Government of Mauritius and Mrs Gandhi speak the same language and have the same perception of the Indian Ocean situation. The two governments expressed complete agreement on the Indian Ocean issue although Mrs Gandhi herself was not as stridently anti-American as some of the extreme leftist elements of the MMM would have wished. In fact Mrs Gandhi was, as usual, careful and shrewd in handling international issues affecting the Indian Ocean area. But she was quite adamant about her support to the Mauritius government in demanding the retrocession of the Chagos Archipelago, which includes Diego Garcia, to Mauritius. The two governments expressed "apprehension at the transformation of Diego Garcia into a

military base" and the joint communiqué clearly states: "The Prime Minister of India reiterated India's full support for Mauritian sovereignty over the Chagos Archipelago which was detached from the territory of Mauritius by the former colonial power in 1965 in contravention of the UN General Assembly resolutions 1514 (XV) and 2066 (XX)."

In a spontaneous gesture Mrs Indira Gandhi offered the sum of Rs 1,000,000 towards the rehabilitation of the displaced Diego Garcia. This move of India has had a tremendous impact on the people, especially those of African origin. It is salutary for the emergence of the Mauritian personality. In Mauritius the belief was that India was interested only in people of Indian origin. Mrs Gandhi has given the lie to this kind of feeling which for years had generated a sort of anti-Indian sentiment in Mauritius.

Major fall-outs

Apart from the similarity of views on international issues especially the Indian Ocean area, the



Mrs Indira Gandhi is greeted by the Mauritius Prime Minister, Mr Anuroodh Jugnauth, and Mrs Jugnauth on arrival in Port Louis.

Mr Kher Jagatsingh was a member of the former Mauritius Labour Party government.

major fall-outs of Mrs Gandhi's visit to Mauritius are the following:

(1) India will extend a line of credit of Indian rupees 100 million (approximately Mauritius rupees 115 million) through the EXIM Bank for the import of specified capital goods. In addition, India will assist Mauritius at the Second Consultative Group Meeting for Mauritius to be held in Paris in February/March 1983 under the aegis of the World Bank and the IMF.

(2) India agrees to refining crude imported by Mauritius up to about 150,000 tons per year. Technical level talks will take place to work out the details of the nature of the crude in accordance with India's refining capacity.

(3) India will provide consultancy services for the development of Plaisance Airport.

(4) India is prepared to assist in the maintenance and security checking of aircraft of Air Mauritius in India.

(5) India will provide technical assistance for the setting up of a state trading corporation and for its initial management.

(6) India will send a team of experts to assist in the establishment of a small scale industries bureau and the setting up of an industrial estate for small-scale industries. Indian experts will also assist in the banking aspects relating to small scale industries.

(7) India agreed to the request of Mauritius for the inclusion of Mauritian scientists in its expeditions to the Antarctica from 1983 onwards. It will also offer training facilities for Mauritian scientists at the National Institute of Oceanography at Goa.

(8) India will assist in the exploration of polymetallic nodules in the Mauritian-sea-bed area.

(9) India's own capacity for oil exploration is overstretched at present because of domestic requirements. However, it will provide technical support in this field to Mauritius.

(10) India will provide technical assistance to Mauritius for the setting-up of a national shipping line. Funds under the line of credit could also be utilised for the purchase of a vessel.

In addition to all this India and Mauritius signed an "Avoidance of Double Taxation" agreement and also agreed that the Indo-Mauritius Joint Commission would meet in Mauritius in November this year.

Cultural relations

Mauritius has a large population of people of Indian origin, (about 70 per cent) and the cultural ties with India are as important. Mrs Gandhi did not hesitate to emphasise this aspect of Indo-Mauritius relations. During her visit she opened a new industrial technical training institute which has been financed by the Indian government. She has been happy at the new sense of direction which the new Mauritius government wishes to give to the Mahatma Gandhi Institute.

The visit was an unqualified success and the relations between India and Mauritius are now on a new footing and Mauritius expects a lot of investments from India. Indian entrepreneurs can make up for lost time now.



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COVER STORY

Where is production for the masses?

By D. T. Lakdawala

THERE has been a heated controversy on the description of the current situation of the Indian industrial economy as being one of recession or that in need of adjustment. Underlying it are the differences on the causes of and cure for it, which make the debate of much more than terminological importance. While live contact with business and intuition and insight into its working are of great importance in forming a correct judgement, many persons like me do not have these assets and have, therefore, necessarily to rely on such quantitative and qualitative information as is publicly available. The statistics necessarily pertain to the past, and in India they are available only after a time lag. With all their limitations they furnish a good basis for drawing tentative conclusions.

The available statistics reveal that during the first six months of this year there have been some lines like cotton yarn and textile, jute, tea, saleable steel, aluminium, soda ash and scooters, where production has declined compared with the corresponding period of the previous year. In some of these decline in sales or such prospects have been responsible for this decrease. In some lines the long waiting period between orders and deliveries has declined; premia have disappeared or been drastically reduced and in a few case discounts have appeared. It is likely that if this process continues for long, other allied and interdependent industries may be severely affected. The question, however, is: How important is this phenomenon and what are the chances of its spread?

From this viewpoint it is interesting to note that while the lines, in which production has declined not

always because of shrinkage of demand, account for roughly one fourth of the total weightage in industrial production, in lines accounting for 35 per cent production has increased. The latest industrial production index (January-April, 1982) shows an increase of more than 5 per cent over the corresponding period of 1981. The published balance sheets of companies show that while the margin of profits in relation to sales has shrunk, profits after tax, dividends, and gross asset formation show an increase not only in 1981 over 1980 but even thereafter. In their vital decisions regarding industrial expansion the industrialists take an optimistic view of the future forgetting their talk of the emerging recession. The consents for capital issues in January to June 1982 amounted to Rs 320 crores as against Rs 506 crores in the whole of 1981 and the capital raised through the shares and debentures accounted for Rs 305 crores as against Rs 402 crores in the whole year 1981. It is thus a mixed situation which calls for industrywise analysis and remedies.

Imports and credit

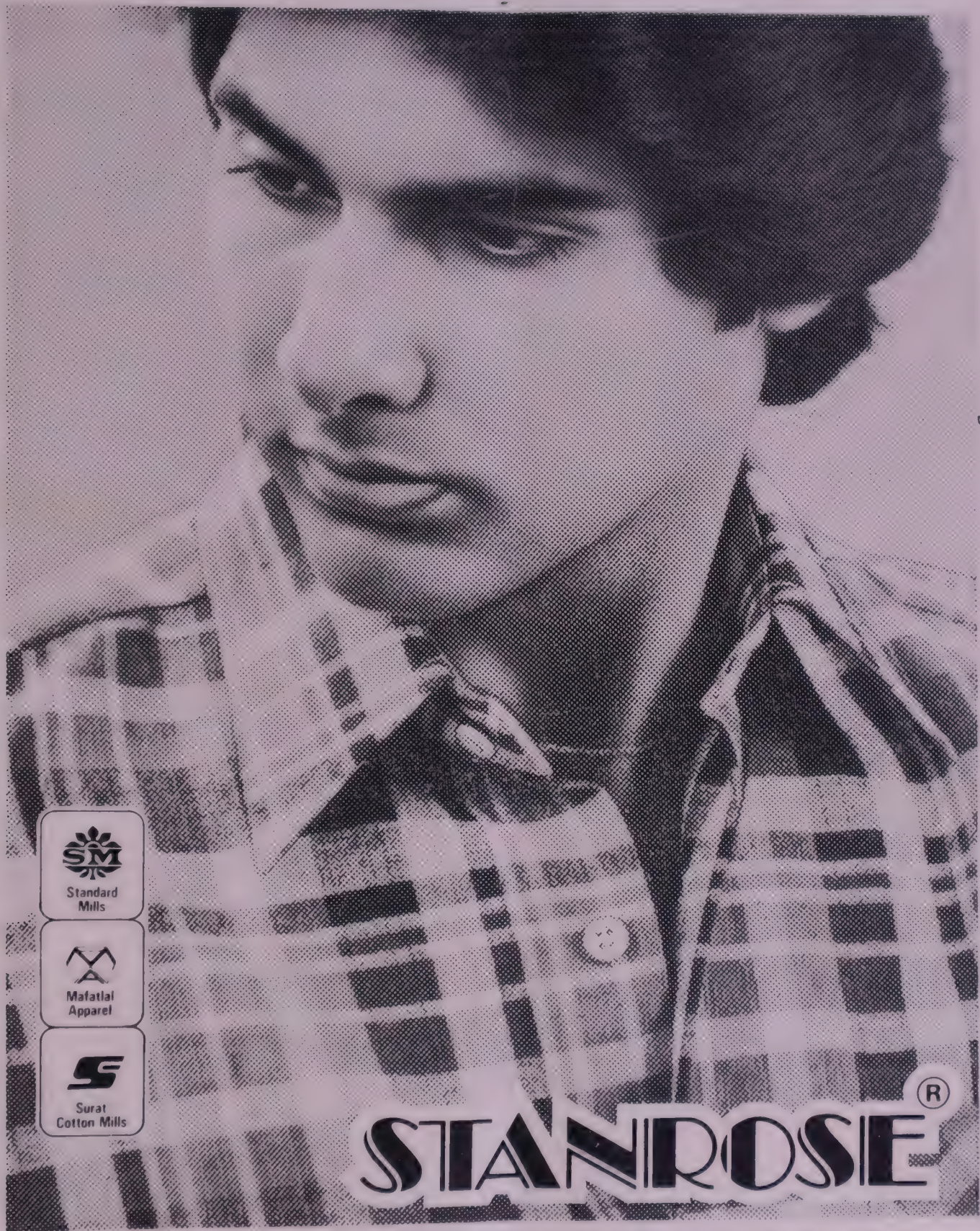
Two causes have been widely spoken of as accounting for this phenomenon and fortunately a recurrence of both can be easily guarded against, if the government and business cooperate. In the case of commodities like synthetic fibres, soda ash and some other chemicals, import liberalisation and cheaper costs abroad or cheaper prices at which exporters are prepared to part with their goods have led to heavy imports. It has been the long-established policy of the Government of India that when in any line there is idle production capacity in the country imports from abroad would not be permitted, as the only real costs involved in fuller capacity utilisation are the prime costs of production and these are likely to be less than import price. The only proviso one must keep in mind is that this policy can work smoothly to the interests of all if the producers try their best to minimise the costs of domestic production and are prepared to

sell these products at a fair price and do not take advantage of the short term scarcities that arise from time to time.

The other cause frequently spoken of is lack of credit. There is ample statistical evidence to show that as a result of the realisation of their error in overexpansion of credit in the earlier period, during the last few months the banks have been extra cautious. It is found that the increase in non-food credit to the commercial sector during the months April to August 6 was Rs 246 crores as against Rs 1,116 crores in the corresponding period in 1981. As usual in any system of inadequate information and imperfect control, the distribution of credit sanctioned among different sectors has not been in proportion to their needs. This has severely hit a few industries like trucks and tractors whose purchasers are dependent on bank credit.

Both these, excess imports and sudden credit contractions, were not the result of any settled policies. Inadequate information and panicky action taken in haste may explain these aberrations. The government has already enacted an anti-dumping act and expressed its readiness to take measures of import control where import hit domestic production. The conditions which the Government of India has agreed to with the IMF regarding 1982-83 ceiling on bank credit envisage a large expansion in credit to the commercial sector of 18.9 per cent. The expansion is a little higher than that agreed to for credit to the government sector namely 17.6 per cent and reverses the 1981-82 position, when the expansion ceilings were 18.9 per cent and 20 per cent respectively. On the assumption that the public sector enterprises will get only their due share of commercial credit, the contemplated credit expansion cannot be regarded as inadequate for the private corporate sector. Along with the 1982-83 envisaged Plan expenditure increase of 21 per cent and the promise to review it if core sector targets are not realised, a recession of the late seventies or

Dr Lakdawala, former Deputy Chairman of Planning Commission, now is Director of Sardar Patel Institute of Economic and Social Research. The article is based on address delivered at the seminar on emerging industrial recession, held under the auspices of Gujarat Chamber of Commerce, Ahmedabad, on August 25, 1982.



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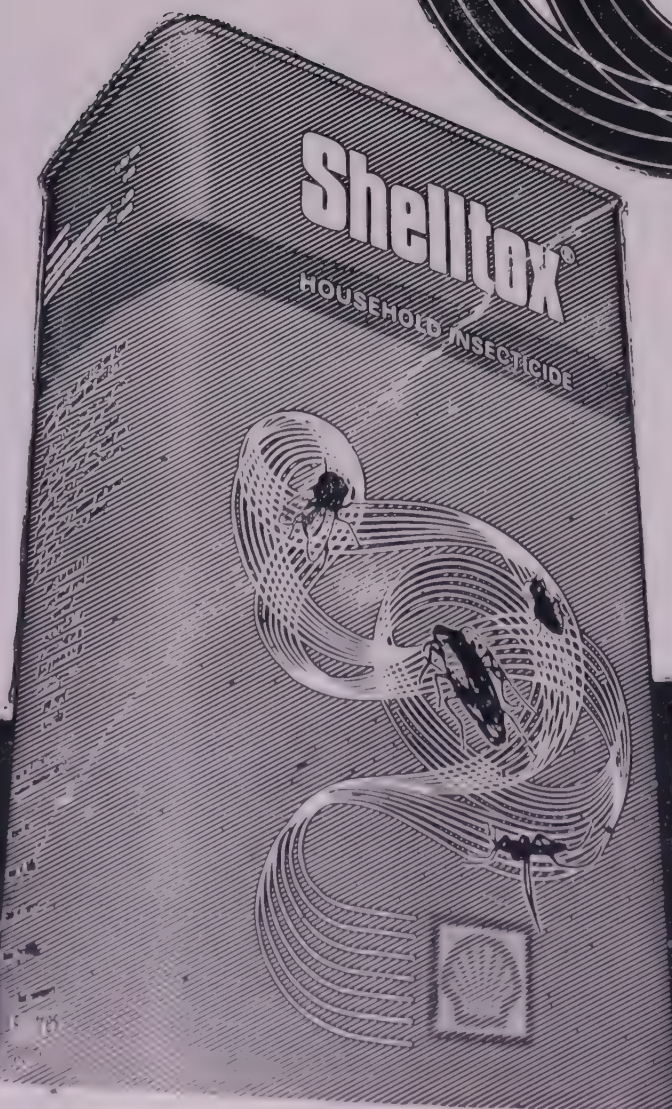
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COVER STORY

mid-eighties type is extremely unlikely.

High industrial growth

For those interested in the higher goal of rapid industrial growth, there are however warning signals on the horizon. The industrial growth rate is showing some tendency of slackening and during the last six months there are reasons to believe that it has not been much more than 5 per cent as against 8 per cent industrial growth rate recorded in 1981. The decline has as much to do with the longer term supply problems as with any demand recession. Given the low 1979-80 base the industrial growth rate in the succeeding two years could easily be high. As the situation improves the base becomes higher and one comes across the supply obstacles to growth, like power shortage, shortage of transport, and shortage of capital funds and credit. These are at the heart of the development problem and are more difficult to tackle. Some of them need more public investment.

The bank credit to the government sector in the year 1982-83 is already running at a high pitch, and in spite of low increase in credit to the commercial sector and in spite of depletion of foreign exchange reserves money supply in the first six months of 1982 has been increasing at double the rate of that in the corresponding period of 1981. While the capital market has done well so far it is showing some signs of strain, and expert opinion is that in 1982-83 it is unlikely to exceed the 1981-82 performance. When the resources are not adequate for both the government sector and the commercial sector and one has to work within a money expansion target which will be compatible with price stability, there is naturally a bitter struggle between them to apportion for themselves a bigger share of the total. The commercial sector demands higher prices, less taxes, direct and indirect, cheaper interest rates for the loans they get from the nationalised institutions, more credit, a higher debt-equity ratio and permission to give attractive interest to depositors and debentureholders (which because of such interest being regarded as deductible

expenditure proves cheaper to companies than equities).

The government, on the other hand, asks for better resource mobilisation, more public savings (mainly obtained by raising prices of public sector goods and services), increase in cash reserve ratio (CRR) and statutory liquidity reserve ratio (SLR), and tax free provisions for lendings to the government, an extreme instance of which is the capital investment bonds. In the last few months, one has witnessed quite a few changes in public policy, wavering in both directions. One legitimately asks why with savings and investment running high and according to expectations, the nation should run short of funds. Some guesses only are possible in this connection. While the Indian Plan, with its pre-occupation with the public sector, estimates fairly precisely the needs for public investment at a given price level, its estimate for private sector needs do not have the same degree of precision or exactitude. One must await results of Dr Rangarajan's committee (set up by the Reserve Bank of India) to really see whether and how far the Plan underestimates the capital requirements of the corporate sector for achieving the plan targets.

Savings and investment

Savings and investment as a proportion to national income showed a sharp increase in 1978-79. When these results were published and given wide publicity through the Revised Draft Plan 1978-83, they were widely acclaimed as a great achievement serious doubts about the veracity of these results arose when the growth rate did not show a proper response to this welcome significant change in the propensity to save, and a committee was appointed to go into this question. The committee has submitted its report; its publication is still awaited. One however, understands that while the committee does not find much fault with the figures of savings and investment, its implications for growth are not exactly as generally drawn. The prices of investment goods have increased much more than the prices of consumption goods with the result that in real terms the increase in investment is less than what may be inferred from the increase in in-

come and the growth in the ratio of investment to income.

If it is found that the resources are inadequate for the realisation of the product targets, two alternative courses of action are possible. The easy one is to revise the production targets downwards, a painful exercise which will also mean lowering the industrial growth rate and the overall growth rate. If this is ruled out, the only other alternative is to create an environment where higher savings are realised and where more innovations, greater efficiency and better techniques are forthcoming. It must however, be remembered that such changes cannot be the result of a few persons' efforts. They require widespread mobilisation.

Capacity utilisation

The Sixth Plan visualises that by its end the utilisation of industrial capacity will be much more than in the beginning (see Table 1) and many of its calculations in the realm of industry are dependent on the realisation of this possibility. There are however, many factors which may hinder the achievement. Bad industrial relations which are often mentioned in this connection are

Table 1: Capacity utilisation

Capacity utilisation	No. of industries 1979-80	1984-85 (target)
Less than 50%	13	Nil
Between 50-75%	64	16
More than 75%	41	102
	118	118

(J. C. Sandesara, Industrial Growth in India, Performance and Prospects, p. 29)

only one of symptoms of the wider malaise that affects the economy. There is a growing alienation between the rich and the poor, the elite and the masses, the government and the people. This gap needs to be bridged if the production optimum is to be reached. This can only be achieved if, besides efficiency, equity is recognised as a worthwhile goal and the credibility of the economic and social system is established.

The prior claims of the poor on any economic gains must be given their due, which means that the system must give proper priority to production of goods that are needed though not necessarily in effective demand and that it must not produce all goods which are demanded

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500 million potential purchasers

By Vadilal Dagli

THE question of recession has become a matter of public concern. While government spokesmen describe this phenomenon as one of adjustment, spokesmen of business and industry describe it as unmitigated recession. But there seems to be a consensus about the fact that certain industries are going through a phase which could be described as mild recession. One of the symptoms of recessionary trends is the piling up of stocks. At the recent meeting of the Planning Commission, which was presided over by the Prime Minister, it was noted that certain sectors of industries were experiencing recessionary trends. Major industries affected by excessive stocks are steel, tractors, paper, fertiliser, caustic soda, soda ash, refrigerators and air conditioners, alcohol and viscose fibre. The stocks of saleable steel went up from four lakh tonnes a year ago to 18 lakh tonnes, that of caustic soda from 12,000 tonnes to 50,000 tonnes; refrigerators from 24,000 pieces to one lakh pieces; and viscose fibre from 1,250 tonnes to 5,000 tonnes.

So there is no doubt that some of the industries are in depressed conditions. What has contributed to this state of affairs? Has production in these industries started to decline? At least in some of the industries like tractors, there is decline in production. It would not be helpful if we harp on one cause and neglect other factors, which have played havoc with some of our established industries. The principal cause for recessionary conditions would be the lack of demand. Other factors which might have contributed to fall in production may be power shortage, labour situation and lately liberal imports. Credit restraints have also played some part in accentuating recessionary situation. But to say that credit liberalisation would straightway solve the problem of recession would amount to the simplification of a complex situation. Even if liberal credit were available,

Based on the talk of Mr Dagli at the seminar held under the auspices of the Gujarat Chamber of Commerce, Ahmedabad on August 25, 1982.

say, for instance, the factor of mindless imports would make the same adverse impact on the production of affected industries. So while locating the causes of emerging recession, one should not opt for a cure-all prescription but suggest specific remedies for specific ailments of specific industries.

Differing causes

To make my point clear, I will take the cases of those industries where stocks have piled up. I will begin with steel. The steel industry as a whole is said to be nursing stocks of about 18 lakh tonnes. There has been a demand recession in the steel industry because of the reported cut-back in production by truck, tractor and other engineering industries by 30 to 40 per cent. It is heartening that the Reserve Bank of India has suggested to commercial banks some liberalisation of credit for the purchase of trucks and tractors. It is also heartening that the Reserve Bank has not fully accepted the thesis that the problem in truck and tractor industries was caused by over-indenting. Over-indenting is only a partial explanation. Credit facility in this specific case might revive the demand as no other factor could do.

The demand for caustic soda where the stocks have been nearly four times higher than those prevailing last year has been adversely affected by the closure of 60 textile mills in Bombay for over seven months now and the decline in the demand for cloth since last year. Paper industry which is also an important consumer of caustic soda has been indenting much less than before. But at the same time we must note that caustic soda capacity is increasing at a time of decline in demand. All these factors contributed to the piling up of stocks of caustic soda.

People of Gujarat should be particularly concerned about the plight of soda ash industry because nearly 95 per cent of the soda ash is produced in Gujarat. Here the recessionary condition is entirely government-made. Mindless imports of soda ash have crippled this indus-

try and there has been dumping of soda ash from Bulgaria. Even such advanced countries as those of the European Economic Community have imposed an anti-dumping duty on Bulgarian soda ash while we go on permitting that country to dump this commodity into India. As much as 25 per cent of our total annual production of soda ash has been dumped into this country in the last few months and the result is there for all to see. This is why the soda ash industry has demanded anti-dumping duty.

Viscose fibre

In the case of viscose fibre in which stocks have piled up nearly four times that obtained a year ago, dumping is again the culprit. Refrigerators and air conditioners are the instances of market resistance. During the past 20 years inflation and personal taxation have eroded the purchasing power of middle class and upper middle class. The taxes on these products have made them demand inelastic. If the stocks of alcohol have gone up considerably, it is a problem of plenty. Sugarcane output has gone up to 180 million tonnes and this has created a bumper production of molasses which, in turn, has pushed up the stocks of alcohol.

During the first quarter (April-June) of 1981-82 industrial output rose by as much as 11.3 per cent. But during the first quarter of the current financial year industrial output increased by just 6.8 per cent. This is a disturbing slowdown. It may be argued that the restrictive credit policy might have contributed to this deceleration. Non-food credit during the first quarter of 1982-83 contracted by Rs 304 crores or 1.1 per cent as against the expansion of Rs 737 crores or 3.1 per cent during the corresponding period last year. In other words, even though the output increased by nearly 7 per cent, industry got about Rs 1,000 crores less than what it would have got if last year's credit trend had continued. This must have seriously affected the working capital requirements of quite a few industrial units.

COVER STORY

Government credit

But when spokesmen of business and industry talk about restrictive credit policy they neglect to discuss the quantum of credit to the government sector. During the first quarter of the current financial year net bank credit to the government sector expanded by Rs 2,445 crores as against the expansion of Rs 1,593 crores during the corresponding period last year. So during this period the credit to the government sector increased by nearly Rs 1,000 crores more while the bank credit to commercial sector decreased by Rs 1,000 crores as compared with the corresponding period last year. So as far as the government was concerned there was no credit restriction at all.

It is time that the Reserve Bank of India, in consultation with the Ministry of Finance, prepared an overall credit plan for both government and commercial sectors. *Ad hoc* restriction on credit to commercial sector while the government sector goes on receiving credit without any restriction is not beneficial to the health of the economy. While preparing the credit plan for the entire economy the Reserve Bank of India may also consider whether credit to luxury goods industries and services may not be given at twice the rate of interest charged to producers of basic necessities. The experience of *multani* bankers would indicate that what luxury industries care for is the availability of credit and not its cost.

Infrastructural bottlenecks

Infrastructural bottlenecks could result in slowing down production. That the power generated in the first six months of 1982 was 5.8 per cent higher than that in the corresponding months last year is small comfort when you consider the heavy power cuts in force in industrialised and other states. At the end of July 1982 major power cuts were in force in states like Gujarat, Maharashtra, West Bengal and Uttar Pradesh, as also in Madhya Pradesh, Orissa, Punjab, Rajasthan and Jammu and Kashmir. In Gujarat, the state electricity board has imposed a 50 per cent power cut on continuous process industries and 40 per cent on non-continuous process industries. This is the state of affairs in the

Capacity utilisation in selected industries : 1980 and 1981

Item	Unit	1980	1981		
			Capacity	Production	Capacity utilisation
Nitrogenous fertilisers	Lakh tonnes	52	47.23	21.60	46
Phosphatic fertilisers	Lakh tonnes	63	14.15	8.42	60
Commercial vehicles	Numbers	73	84,000	89,625	107
Passenger cars	Numbers	57	52,400	42,096	80
Soda ash	Lakh tonnes	87	6.96	6.41	92
Caustic soda	Lakh tonnes	72	7.79	5.82	75
Cement	Lakh tonnes	74	292	198	68
Aluminium	Lakh tonnes	57	3.30	2.12	64
Vanaspati	Lakh tonnes	55	12.91	8.48	66
Jute manufactures	Lakh tonnes	89	13.25	11.54	87
Sugar	Lakh tonnes	70	59.91	55.48	93
Tractors	Numbers	96	75,000	81,196	108
Scooters	Lakh numbers	75	2.49	1.98	80
Paper	Lakh tonnes	70	15.47	11.45	74
Newsprint	Tonnes	63	60,000	55,000	98
Automobile tyres	Lakh numbers	92	85.80	80.31	94
Bicycle tyres	Lakh numbers	79	340.00	257.62	82

second industrialised state of the country to-day.

The industrial relations climate in this "Year of Productivity" continues to be depressing. We are used to strikes. But the recent 8-month-old (and still continuing) textile strike has not only affected the output in the strategically industrial city of Bombay but has created recessionary conditions in the industries associated with the textile industry. Already as many as 49 million mandays have been lost during the first seven months of 1982 as against 22.56 million mandays lost by strikes and lock-outs in 1981. As a result of these developments, in the first six months of 1982 industrial production was only 5.1 per cent higher than that in the same period of 1981. This is only about half the rate of expansion in the first six months of 1981. This would indicate that all is not well with our industrial landscape.

Plan investments

While discussing recession it should also be observed that plan investments play a crucial role in maintaining the health of our economy. Because of the inflationary strategy of financing plans, plan outlays in real terms get eroded. During first two years of the Sixth Plan 1980-81 and 1981-82, the Plan outlay at current prices increased by 21 per cent and 18 per cent respectively. However, on account of sharp rise in prices during this period the real increase was only 2.3 per cent and 8.7 per cent in these two years. It will be in the interest of the busi-

ness community to demand that the plan outlay should be increased by at least 10 per cent in real terms every year. If this is achieved, the economy will not be plagued by the shortage of demand, particularly in engineering industry. The overall impact of the booming engineering industry on the entire economy can never be over-emphasised.

Restricted market

What about the future? What is the outlook for the next 12 months or so? Although the monsoon has been quite erratic, the shortfall in agricultural output may not be as big as it was feared few weeks ago. This should help in reviving demand from rural areas.

Another step that could immediately help our industrial health is the increase in capacity utilisation of our power plants. If the private sector power plants has a capacity utilisation of nearly 100 per cent, why should public sector plants have the capacity utilisation almost half of it?

Finally, I would like to make two points: One is regarding imports which I would like to discuss again. I am glad that the Government of India has understood the impact of dumping on our industrial economy. It is not only soda ash and viscose fibres which have been hit hard by dumping. Many small industries have also been adversely affected by thoughtless imports. For instance, a small scale unit in Saurashtra which was making electronic heads (which are used in the taperecorders

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SPECIAL ARTICLE

Will Sixth Plan be saved?

By M. V. DESAI

IF a representative of the International Monetary Fund in the *avatar* of a fly were sitting on the wall of the committee room when the Planning Commission met under the Prime Minister's chairmanship, it might have watched the proceedings with wry satisfaction. It was not a long meeting for the Review of Plan progress to come to an end. There were no critical or dissentient voices. Unlike the older days which Mrs Gandhi could recall with nostalgia when Pitambar Pant or C. Subramaniam or B. S. Minhas was Member, there was no heat—not even some sparks—in the routine exchange of views. And the participants dispersed with thanks left unsaid to the one member who was absent but was this review's architect, plan coordinator and gentle source of wise counsel. (For who in the Commission would dare praise Dr Man Mohan Singh's distinguished services without a prompting from Mrs Gandhi? The fly would have found it difficult to restrain itself. It would have rushed out of the room ahead of the others and flashed home the good tidings on to Washington: "Come back, IMF, all is forgiven—and forgotten".

For the review showed how tight and strained the resources for the plan were. There is no prospect of the Sixth Plan coming home and dry with its investment programme all intact. It was an initial mistake of the new government in 1980 not to have kept the Sixth Plan (1980-85)'s total outlay as low as it was advised. It allowed its political ambitions to get the better of economic sense and managerial experience.

The result is that well before a proper mid-term appraisal, the stark question before the Commission is: How to save the core of the Plan? What has been forced upon government by the hard realities of the internal economic scene makes the strong medicine advised by IMF redundant. No longer need IMF invite the odium of asking India to cut the plan coat according to the resources cloth. The plan is being cut to its bare white bones by non-plan spendthrifts and poor tax gatherers. The IMF need dictate no spending cuts: the nature of Indian politics has re-asserted itself, imitating and replacing the fine arts of the IMF.

For, within less than a month after

the presentation of the Annual Plan for 1982-83 to Parliament, the Commission has had to face the realities. So a good part of the 21 per cent step up in outlay over the 1981-82 plan may remain an exercise on paper. The erosion of resources has taken place at more than one place, not to speak of the overall impact of inflationary trends and escalation of costs. Exports are not showing the same healthy trend as in the past. Tax receipts are not buoyant, although they must pick up as the financial year advances.

Most damaging set-back

And the most damaging set-back to plan expectations and projections over the next three years comes from the failure to mobilise the resources. The Centre has certainly made a brave attempt to fulfil its part of the tax effort. But it has been more than let down by the states. Chief Ministers seem to get cold feet even when they know their days are numbered and when no harm can come to their fortunes if they were to show some economic sense and political courage.

But chief ministers are no longer made of the stuff needed to steer the state development plans out of their doldrums. After many essays in persuasion, for instance, Uttar Pradesh had agreed to raise power rates and to pull the State Electricity Board out of the red. But even an honest and sound chief minister like Mr Vishvanath Pratap Singh lost nerve—or had to yield ground to vested interests. The result will be that there will be during 1980-85 in UP little by way of development through self-help or improved living standards for over a hundred million people. A majority of them must be condemned to a life of abject poverty with no hope of its alleviation in the present decade. And thus the stagnation in UP and Bihar and West Bengal must pull the rest of the country back.

Not that there is much wrong with the Plan priorities. There is welcome shift of emphasis to industries which provide critical inputs like fertilizer, steel and non-ferrous metals. Whether it is agricultural output or the overall growth rate, still so dependent on agriculture, the aggregate targets will depend for their achievement on whether or not there is

enough energy for the farmer and the factory worker. Necessary as the increase in the 1982-83 outlay for the energy and oil exploration sector by 40 per cent has been, it is unlikely either that the outlay will be effectively invested or that the fruits of investment—now making nearly a third of the total public sector plan outlay—be reaped in time.

Poor implementation

Poor resource mobilisation is not the only cause of the Commission's worries. It is also disturbed by the poor performance in plan implementation both by the Centre and the states. The plan expenditure in 1980-81 was of the order of Rs 14,778 crores as against the approved outlay of Rs 15,109 crores. The shortfall was on account of the Central sector plan. According to the revised estimates for 1981-82, the plan expenditure was of the order of Rs 18,187 crores against the original approved outlay of Rs 17,417 crores. The bulk of the increase is accounted for by the Central sector. The plan for 1982-83 has been fixed at Rs 21,082 crores.

As for the performance of the states the Commission's review says, "Several states have not been able to mobilise resources in line with the Plan targets. The problem of overdrafts from the Reserve Bank at the beginning of 1981-82 was confined to a few states, but it became a general problem, covering most states by the end of 1981-82 when their aggregate deficits totalled Rs 1,707 crores as against Rs 595 crores at the end of 1980-81."

What has contributed to this includes increased expenditure on revision of pay and D.A. and increasing losses of the state electricity boards and road transport corporations. The actual deficit of Rs 1,717 crores in 1981-82 is much higher than the aggregate deficit of Rs 1,004 crores which had emerged as recently as January 1982 after discussions between the Planning Commission and the chief ministers.

External account

The satisfactory position on external account cannot last long. In 1981-82 India's ability to draw upon foreign exchange reserves to the extent of Rs 1,468

SPECIAL ARTICLE

erences and drawings from the International Monetary Fund (IMF) has helped in moderating the growth of money supply and stabilisation of prices. However, the payment deficit experienced last year is clearly unsustainable in the long run. "We must devise an effective strategy to reduce the balance of payments deficit on current account from 2.4 per cent of the gross domestic product (GDP) in 1981-82 to not more than one per cent in a period of about five years. In the next two years, we may be able to finance the emerging deficit by borrowing from the IMF and commercial sources".

Effective steps are urgently needed to take care of the Seventh Plan years. For, as the review says, "A widening of the trade deficit of Rs 6,200 crores in 1981-82 as against Rs 5,800 crores in 1980-81, despite a significant increase in domestic production of oil and stability of international prices of imported oil is a cause for serious concern." In the first two years, the growth of exports has not been in line with the targeted rate of nine per cent in volume. Therefore the Commission has suggested that a standing group represented by the Finance Ministry, RBI and the Ministry of Commerce should regularly watch the import and export trends, including the behaviour of invisible earnings. Its recommendations should be considered by the Cabinet Committee on economic affairs from time to time for an orderly management of the balance of payments. In the absence of effective action against further worsening of the balance of payments after 1984-85, the hopes of a continuing growth of the economy must remain dim: "Unless we adopt more effective measures for export growth, and for moderating the growth of bulk imports such as petroleum, fertilizer, steel and vegetable oils, the position may emerge as the main constraint to development in the second half of the eighties".

Disturbing trend

Not that this picture of gloom is unrelieved, at least in the short run. For industrial production has grown by four per cent in 1980-81 and showed a further eight per cent growth in 1981-82. However, industrial growth rate has declined in each quarter of 1981-82. It decelerated from 11.3 per cent in the first quarter to 11.1 in the second, 7.5 in the third and 6.8 per cent in the fourth. If this trend persists, there is likely to be a fall in the rate of industrial growth in 1982-83.

How is this explained? "Power shortage and strained industrial relations

continue to be a constraint on a number of industries, especially those belonging to the transportation and the automobile sector". There should be a step-up in the public sector outlay in some sectors such as railways and power, and a review of imports in cases where they hurt utilisation of domestic capacities.

In spite of slower growth in industry, the economy recorded a growth rate of 7.5 per cent in 1980-81. The rate for 1981-82 is estimated at 6 per cent. The average growth rate for the two years works out to 6 per cent as against the targeted rate of 5.2 per cent for the Sixth Plan. This is an encouraging feature. The main reason for this is the very low base levels accepted for the start of the Plan.

Unfortunately for industrial growth, the medium-term prospects for agriculture are somewhat uncertain. The growth of foodgrain production, in 1980-81 and 1981-82, has been less than the plan targets. Production in 1981-82 is not much higher than the previous peak level of 131 million tonnes in 1978-79. Growth of fertiliser consumption has slowed down in the last two years.

Among the other disturbing events, there is a decline in food stocks from the level of over 18 million tonnes in March 1979 to 10.8 million tonnes by the end of March 1982. "This is a potential source of instability." The utilisation of irrigation potential continues to be poor and returns in the projects are disappointing. In particular the pace of utilisation of the vast groundwater potential in Uttar Pradesh, West Bengal and other states continues to be rather slow. It is commendable that the Planning Commission should also express its anxiety over credit operations for better agriculture. As it admits, the farmers' overdues, in both long and short-term credit in co-operative and commercial banks present a picture which is "highly unsatisfactory. Determined measures are needed to restore the health of the system".

Higher resource mobilisation

How then to save the Plan—or at least its core? Its price is higher resource mobilisation. "If the targets in the selected core sectors are to be prevented from slipping badly, a minimum additional outlay of Rs 10,000 crores at 1981-82 prices will be required". This must call for some hard decisions by government for raising additional resources to the extent of Rs 10,000 crores. Among those

suggested by the Commission are "a further selective adjustment in the prices of petroleum products; reduction in food subsidies; adjustment in railway fares and the use of the mechanism of Central excise duties on generation of electricity".

Will government muster the political will and courage needed to provide a minimum additional outlay of about Rs 10,000 crores at 1981-82 prices, over and above the projected outlay of Rs 97,500 crores for the Sixth Plan in order to retain and achieve the physical targets? Unless this is done, it is clear that it will not be possible to finance a Plan outlay of Rs 97,500 crores in real terms at 1979-80 prices. "Some scaling down of the plan is inevitable": this is the sober, sombre conclusion of the plan play so far.

So, more important than the plan provisions is early completion of projects, a good many of them in advanced stages. The best beginning would be to optimise the use of existing capacity. In the power sector alone, this has varied between over 60 per cent in an exceptionally lucky year and in well-managed generating plants. Today it is as low as some 45 per cent. If there is an increase of just one per cent in capacity use through better management and operation of power plants, its good effect would be to add nearly 2 million kwh of capacity in the year.

It is not enough for government to throw up its hands in face of bad managers and more reprehensible trade union leaders. If it can take a firm view of the demands of textile workers in Bombay, there is no ground whatever to mollycoddle the workers in power generation industry. Transmission losses also remain high, thanks frequently to illegal tapping connived at by colluding power engineers, corrupt politicians and industrialists.

It is a sign of helplessness and despair that the Energy Minister should think in terms of turning to experts from outside India for advice. If he would have it, there is better advice and expertise available within the country—from BHEL and other places. What he needs is more pride and confidence in Indians. Mrs Gandhi may feel aggrieved when accused rather uncharitably by the Opposition of undermining self-reliance. But certainly our ministers who think foreigners can solve our development problems and others who are engaged in more nefarious activities like smuggling to worm their way into high politics are no great pillars of self-reliant growth.

BOOKS & IDEAS

The rationale of public sector

**Public Enterprises in India—
Organisation and Method**

By P. K. Ghosh

Book World, Calcutta, 1982, Price Rs 20.00, Pp. 207 + viii.

Efficient management of public enterprises in India has remained a matter of concern for long. Even at this late hour of the day, it appears that the rationale of the public sector and public enterprise as also the context and content of mixed economy have not been fully understood and appreciated. The result is that we have already had an oversize public sector, overcrowded by numerous enterprises under the control of the Central and the state governments and a variety of forms adopted for pursuing same or similar activities. Gargantuan investment has gone into the sector and every year the coun-

try observes the ritual of criticising the public sector for being in the red and for not being able to contribute to the exchequer handsomely while, in fact, blotting out considerable resources put in them in various ways. This book by Dr Ghosh provides not only the context of the public enterprise in this country but also a fairly analytical account of what is going on in the public sector.

Divided in nine chapters, Dr Ghosh discusses the rationale of public sector, limitations of a mixed economy, organisational variants of public enterprises, the context of autonomy and control, a general survey of public enterprises, economic impact of these enterprises, price policy and pricing, financial performance in public enterprises and functional parameters of public enterprises management. Massive literature bearing on different as-

pects of the issue appears to have been delved into for churning out the relevant issues to be put in a fairly concise form covering as the volume does two hundred and seven pages including a fairly useful bibliography. The weaknesses of the public sector in matters not only of general running and general management but also of specific aspects of management like finance, personnel, technical aspects, etc. have been highlighted by Dr Ghosh competently taking into account the current state of output and different issues bearing thereupon.

A large number of tables culled from different sources and a competent commentary on the figures available are to be specifically mentioned as qualities of the book. In a short span, the book has been able to drive home its basic standpoints. The umpteen agencies established for exercising external control over the operations of these enterprises and the actual response from the enterprises to the work of these agencies are underlined in different chapters of the book. Though interspersed by facts and figures, the book is commended for its high readability. Not only students but also managers in public sector enterprises of the Central and state governments should benefit from a close study of the book.

P. Chattopadhyay

Publications From The United Nations



Towards the New International Economic Order 1982 73 pages	\$ 9.00
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The current Good Offices Committee conversion rate is Rs. 9.90 to a US Dollar	

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Renewable energy sources

Renewable Energy Sources of Sweden

Energy Research Development Commission, Stockholm, Sweden, 1981. Pages 100 x 4; Price not stated.

This book contains the abbreviated and edited version of a report on the feasibility of and conditions related to the use of renewable sources of energy in Sweden over the coming decades, prepared by the Energy Research and Development Commission (DFE) of Sweden in 1979. The Commission considered the problem of renewable sources of energy in three groups: Group 1 — energy sources which are within the possibility of use today with the already known technology; direct

ombustion of forest energy (waste and stemwood) peat, agricultural products and waste (e.g. straw) in the form of mechanically processed raw materials; Group 2 relating to resources whose use could be visualised in the foreseeable future through the development of required technology: wind energy, solar heating and energy sources from Group 1 converted to more energy-intensive fuels; and Group 3 relating to energy sources whose use cannot be put in any foreseeable time-frame and whose development potential can be assessed only after considerable research effort: energy plantations (i.e. forestry based root shoots harvested at a few years' intervals and in stocks with life expectancy of upto 30 years), solar cells for direct electricity production, wave energy, salt gradients and geothermal energy. The use of energy sources in Group 1 depends on organisation development and economic conditions, while technological development can improve efficiency of the energy use. On the other hand in Group 2 an assessment of the development potential of these alternative sources of energy can be made only after some significant work in R&D. The date by which the alternative sources of energy listed in Group 3 would become usable cannot be forecast.

This report of renewable energy sources in Sweden was presented to the United Nations Conference of New and Renewable Sources of

Energy held in Nairobi in August 1981 and as such would be familiar to energy planners in this country, who would no doubt consider the specific problems and suggestions offered in the report, while working on a plan for the use of renewable sources of energy in India.

Subhash Chandra Sarker

How to smoothen tax matters?

Tax Management

By Ram Niwas Lakhotia

Asha Publishing House, 1A, Love Lock Place, Calcutta 700 019; Pages 360; Price Rs 56.

With over 1,600 insertions, deletions, substitutions or other modifications during the last two decades, the jungle of Income Tax Act and other direct taxes laws has become more and more complex. A taxpayer, howsoever honest and sincere, is quite likely to forget or confuse himself about one thing or the other while tackling his tax liability. Added to this, the legal maxim 'ignorance of law is no excuse' also makes him responsible to pay dearly for his lapses and failures.

It is in this light that the latest book by Mr Lakhotia, the author of

about four dozen books on income tax and their direct taxes, is to be viewed.

The present book emphasises the need, importance and advantages of tax planning and management. It explains how with proper tax management taxpayers can get rid of prolonged proceedings, penalties and, at times, raids leading to the loss of mental peace, besides physical inconvenience.

Written in lucid style, the book contains eighteen chapters dealing with all important aspects of income tax, wealth tax, gift tax and other direct taxes.

But for the mischievous printer's devil, the book has come up well and it may find favour with all kinds of taxpayers as also students and practitioners of tax laws.

H. C. Upadhyay

BOOKS RECEIVED

The Present System : Its Central Point of Rot and Resurgence by Krishan Kant, published by Harold Laski Institute of Political Science, 'Pragati' Out-House, Maharashtra Society, Ellis Bridge, Ahmedabad 380 006; pages 21; price Rs 5.

State Transport Undertakings in India : A Study of Performance, Problems and Prospects prepared under ILO/UNDP Project : IND/73/022, 1981, published by Central Institute of Road Transport (Training & Research), (Association of State Road Transport Undertakings), Pune-Nasik Road, Pune 411 026; pages 262; price not mentioned.

500 million potential purchasers

Concluded from page 415

and other electronic entertainment equipment) had to close down because Japan started dumping this product into India. So I am glad that the Government of India has introduced in Parliament a bill which incorporates antidumping measures. The bill will empower the Government to levy antidumping duties as also to impose countervailing duties on goods free of any import duty. I would suggest that chambers of commerce should be vigilant against dumping of goods, particularly when the recession in the West would tempt not only industry in developed countries but the governments of these countries also to promote dumping of products into developing countries as an anti-recessionary measure for their economies.

The second point that I want to make is about restricted market.

When we discuss recession and when we lament the fact that the demand has been falling, we cannot overlook the fact that although we are a nation of 680 million people, our effective market is of not more than 200 million people. Why is this so? Nearly 500 million people outside the effective market have a very low purchasing power. The business community has shown sufficient social awareness to take up projects to eradicate rural poverty which, in effect, are the projects of increasing the purchasing power of the poor. This they are doing on an individual basis, but the time has arrived for them to take up the question of the restricted market by suggesting effective ways of plan and commercial investments in the areas where these potential purchasers eke out an uncertain existence.

Where is production for the masses ?

Concluded from page 413

but not really needed. How directly and through redistribution of income and productivity the two can be reconciled is a vital question but beyond the scope of our discussion here.

To conclude while, if the announced government policies are implemented and industry makes proper response to the new problems of price stability, the serious situation in which some industries are will soon be a story of the past. The longer-term problem of lifting industrial growth above its average to 7-8 per cent will require much wider and strenuous and radical efforts. Will the Government, industry and the nation prove equal to these demands?

POWER SITUATION

Hydel generation picking up

By COMMERCE RESEARCH BUREAU

THE encouraging news on the power front is that the hydel generation is picking up as a result of the increase in the water levels of the reservoirs of the hydel stations in the country. Although restrictions on the use of power continued in a number of States, the situation improved particularly in Maharashtra.

The statewide power situation as also the restrictions on the use of power are given in the following paragraphs.

Bihar: The four-hour restrictions during the peak period on industrial consumers continued. The categories and industries exempted from this restriction included: the areas served by the Damodar Valley Corporation, continuous process units, Heavy Engineering Corporation; Ranchi, Hindustan Fertiliser Corporation; Barauni, Indian Drugs and Pharmaceuticals Ltd; Muzaffarpur, Uranium Corporation of India; Jaduguda, printing presses of daily newspapers and cement manufacturing units having electric smelting furnaces.

Delhi: Following a sudden disruption in the power supply in the Bhakra system at Panipat-Narela section, the Delhi Electric Supply Undertaking resorted to widespread load-shedding on September 2.

Gujarat: The 50 per cent power cut on continuous process industries as also load-sheddings in rural areas continued in the State.

Haryana: In view of the need for more power to the agricultural sector, the State Government revised the schedule for the supply of power to the industrial and agricultural sectors for a period from September 4 to October 15. Accordingly, the industries were directed to observe peak load hours from 6 p.m. to 10 p.m. daily. However, the industry was serviced through mixed feeders, the supply would be regulated on such feeders from 9 a.m. to 1 p.m. as also two weekly offs.

Jammu & Kashmir: A power cut of five hours a day for small units and six hours for domestic consumers continued.

Karnataka: Although all restrictions on power use were withdrawn by the State Government recently, it was reported that according to industrial sources, a 20 per cent demand cut on industries, steep fluctuations in voltages lasting for four to five hours at a time and staggered holidays for industrial units still continued in the State.

Madhya Pradesh: Power cut up to 50 per cent in the maximum demand on all high-tension industries as also other restrictions and load-sheddings continued in the State.

Maharashtra: In view of the improvement in the power generation in the State, the State Government relaxed the restrictions on consumption of energy with effect from August 31. Accordingly, the industrial consumers in certain areas having maximum demand of 500 kv and above which were so far allowed to consumer energy during the day time, would not be allowed to consume power during the night hours also. Similarly, industrial units which were so far allowed to consume energy only during night hours would now be allowed to consume energy during day time also.

In the meantime, the following power cuts on industries other than those mentioned above continued: the 30 per cent demand cut and 35 per cent cut on general industries and 22.5 per cent demand cut and 30 per cent energy cut on continuous process industries.

Orissa: In view of the improvement in the power situation 22 major industries including Rourkela Steel Plant, Indian Aluminium Co Ltd, and Hindustan Aluminium Corporation Ltd which were subjected to 60-66 per cent power cut were allowed to draw power up to 60 per cent of their requirement.

Punjab: The three-hour power cut in the State continued.

Rajasthan: There was no notified power cut in the State. However, the

restrictions on agricultural sector continued.

Tamil Nadu: The State was reported to be facing power crisis in view of scanty rainfall resulting in poor storage of water in the hydel reservoirs.

Uttar Pradesh: There were no notified power cuts in the State although peak period restrictions on industries continued.

West Bengal: There was no respite from the grim power situation in the State as there was a drastic fall in the power generation.

The Union Energy Ministry set up a high level committee under the chairmanship of Mr Mohammed Fazal, Member, Planning Commission, to look into the matters relating to coal supply to the major thermal power stations and suggest rationalisation wherever necessary.

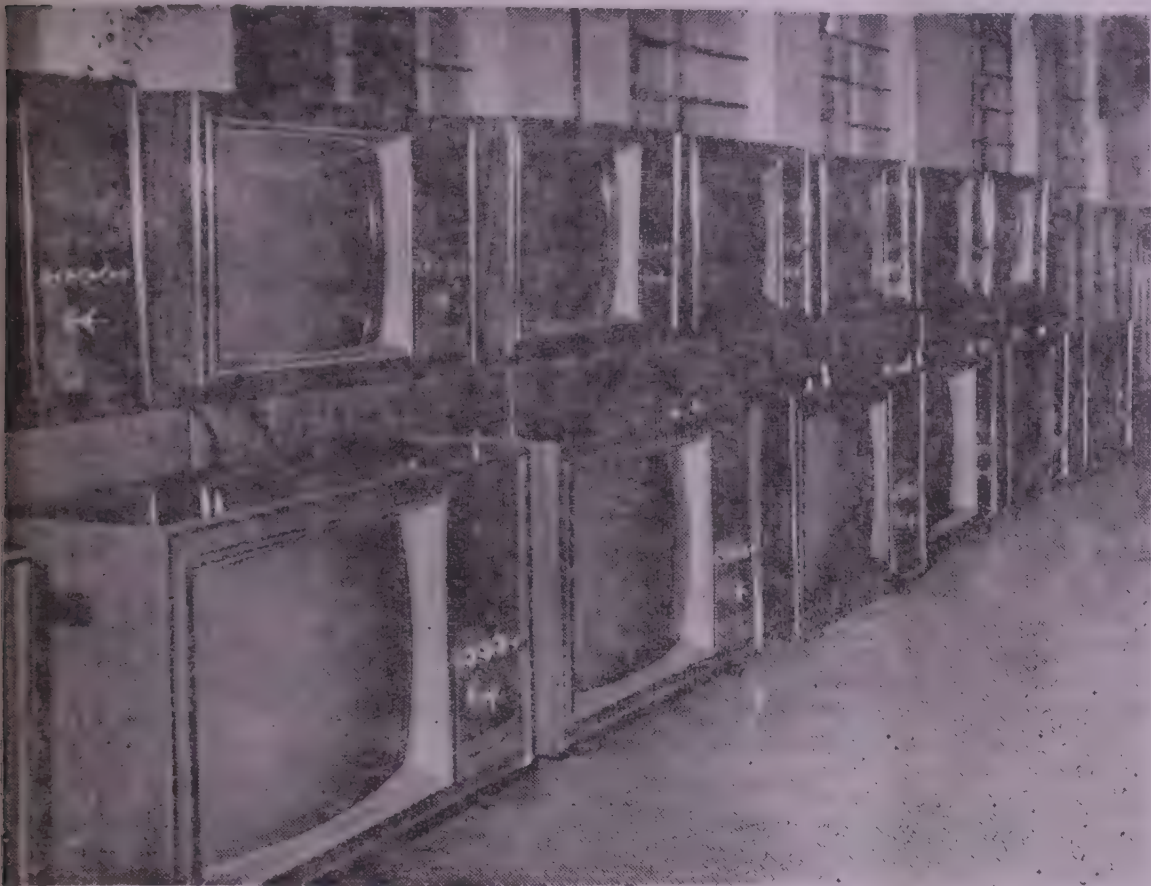
The overall power generation in the country in August 1982 at 11,021 million kwh was lower by 1.3 per cent than that of 11,166 million kwh in July. However, at this level it was higher by 7.3 per cent than that of 1,0267 million kwh in August 1981.

The region-wise increase in the thermal power generation in August 1982 over August 1981 was: north-eastern region—46.8 per cent, northern region—28 per cent, southern region—27.2 per cent, western region—12 per cent and eastern region 1.5 per cent.

The 15 per cent demand cut on high-tension industries as also peak period restrictions on consumers getting supply at 3.3 kv and above continued. On September 2 Calcutta and its suburbs faced a shortfall of 41 mw in the morning peak hours as against 78 mw on September 1.

With the August 1982 figure, the power generation during the first five months (April-August) of 1982-83 totalled 53,895 million kwh which was higher by 7.1 per cent than that of 50,326 million kwh during the corresponding months of 1981-82.

ENTERTAINMENT ELECTRONICS



A FEATURE

Assembled television sets at Keltron

Consumer electronics: Indian scene

THE production of electronics industry in India increased from Rs 364 crores to Rs 789.5 crores (Rs 806 crores including Santa Cruz Export Zone's SEEPZ's production) during the period 1975-80, registering a compound growth rate of 16.7 per cent, according to an analysis of real growth of electronics industry during 1975-80 by A. K. Jain and Gulshan Rai, made for the Information, Planning and Analysis Group (IPAG) of Electronics Commission. This production figure is based on current prices prevailing in a particular year and hence includes the effects of inflation which has occurred during this period. In addition the prices in electronics industry are also influenced by the technological changes.

In the field of consumer electronics, Mr Jain and Mr Rai give the following picture:

The production of consumer electronics has grown from Rs 82 crores in 1975 to Rs 214 crores in 1980, at current prices, registering an overall growth of 21.1 per cent. The production pattern of consumer electronics items in terms of numbers and value for the period 1975 to 1980 is given in the table on page 3.

The increase in production of this sector has been a result of simultaneous growth of all its subsectors and the production base has been widened. In addition to radio receivers, TV receivers, taperecorders, calculators, items like video taperecorders, CCTV systems, electronic watches and clocks are also being produced in India now. However, the two items, namely, radio receiver and TV receiver continue to account for 80 per cent of the production in this sector. The growth of the different subsectors in the last six years is briefly discussed in the following:

(1) *Radio Receiver:* The production pattern on a yearly basis for radio receivers for the years 1975 to 1980 is given in the table. The manufacturers of radio receivers have largely diversified the range of products; at present it extends from one band medium wave (MW) sets to multiband—stereo tuners, car radios, clock radios, radio-cum-recorder, etc. The production of radio receivers is both in small scale sector and organised sectors. The large share of production in small scale sector is towards cheap MW pocket sets and two band radio sets having ex-

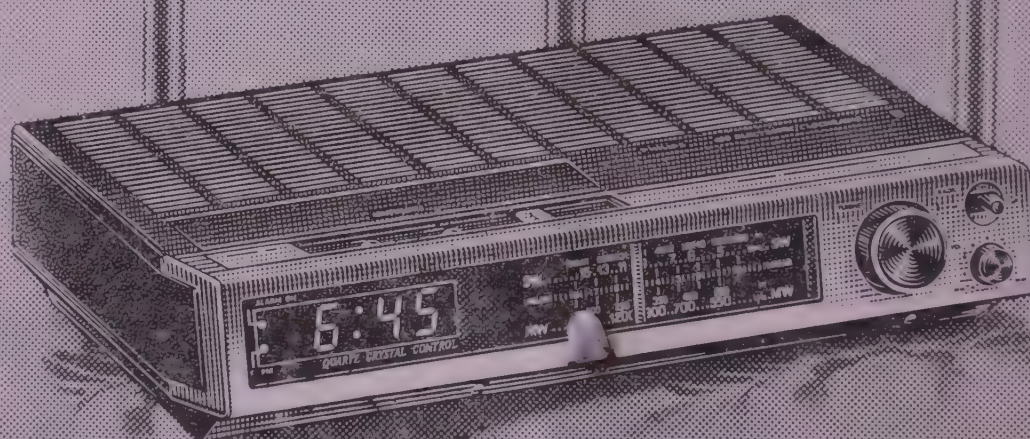
factory value less than Rs 165. MW radio sets costing less than Rs 70 are readily available now. However, the units in the organised sector are concentrating on expensive sets.

(2) *Television Receiver:* The production of TV receivers increased from 97,000 sets in 1975 to 3,69,000 sets in 1980 with the small scale sector dominating in the total production. The number of units in production has increased from 40 in 1975 to 54 in 1980. During the years 1975 and 1976, TV industry grew at a smaller pace, the prices of TV sets were high and the demand was low. The models of different sizes were available in market. However, as a result of significant import duty concession provided by the government on TV glass shells and differential excise duty in 1976 and 1977, the price of TV sets was reduced by about 30 per cent. The production of TV receiver has thus grown rapidly. The production of TV receivers in terms of physical numbers and value is given in table

(3) *Tape Recorder:* The production of tape recorders has increased from 50,000 sets in 1975 to 3,02,000 sets in

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1980. In monetary terms, the production has grown from Rs 35 million to Rs 168 million during the same period. The production in this subsector is mainly confined to small cassette type recorders. However, items like car cassettes and stereo cassette recorders are also being produced. This industry has gained momentum only during the last two years because of availability of indigenous components like tape deck mechanism and the prices have been reduced considerably. At present, cassette tape recorders are available in the market in the range of Rs 350 to Rs 1,000.

(4) *Record Player*: Because of the emergence of TV sets and tape recorders as a popular medium of entertainment, the growth rate of record player industry has been low. The production profile of record players from 1975 to 1980 is shown in the table. The major production in this sector is from organised sector accounting about 70 per cent of the total production.

(5) *Amplifier and PA system*: The organised sector does not play any significant role in amplifier and PA systems as the industries are reserved for small scale sector. The production profile of amplifier and PA systems is given in table. The units operating in this sub-sector have shown competence both in

manufacturing good quality products and in exports.

Large number of other consumer electronic products being manufactured are CCTV systems, electronic watches,

video games, digital clocks, TV booster amplifiers, etc. The production of these products has started in the last two or three years and shared by both organised and small scale sectors.

Year-wise production of consumer electronics items during 1975-1980
(quantity in thousand numbers; value in Rs million)

Sl. No. Item	1975	1976	1977	1978	1979	1980	Compound growth rate (per cent)
1. Radio receiver							
Quantity	2,520	2,980	3,760	4,420	5,130	5,812	18.2
Value	410	479	550	737	827	956	18.2
2. TV receiver							
Quantity	97	143	239	270	311	369	30.7
Value	210	315	460	523	611	725	28.0
3. Tape Recorder							
Quantity	50	70	113	151	179	302	43.5
Value	35	37	65	99	107	168	37.0
4. Record Player							
Quantity	138	119	129	131	153	142	0.4
Value	45	49	60	67	78	83	4.5
5. PA systems							
Quantity	124	139	143	145	151	154	4.5
Value	70	99	101	112	112	136	15.9
6. Miscellaneous							
Value	50	31	54	37	55	63	4.8
Total consumer electronics	820	1,010	1,290	1,575	1,790	2,140	21.1

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Consumer electronics—World overview

By C. S. VAN der KLUGT

ROUGHLY speaking, we can distinguish between three groups of electronics industry. The smallest group consists of the consumer electronics industry. Audio and videoproducts come under this heading; world production in 1980 amounted to some US\$ 62 billion. If we add professional industrial electronics and semiconductors and components to the consumer electronics sector we are then talking about the electronics industry. Its world production in 1980 was some US\$ 250 billion. If we finally add to this domestic appliances, lighting products and the heavy electrotechnical industry, we are then talking about the electrotechnical/electronics industry. Its total world production is estimated at between US\$ 400 and 500 billion in 1980. The share of the USA, Europe and Japan in the production of the electronics industry and the consumer electronics sector amounts to around 70 per cent. As regards the electrotechnical plus the electronics industry this percentage is lower, because the East Bloc countries with their large heavy electrotechnical industry make their weight felt strongly here.

The total sales figure for the electronic companies mentioned in *Fortune's* 500 largest companies was US \$ 350 billion. The companies with their headquarters in the USA account for almost half of this amount, those with their head offices in Europe account for one-third and the Japanese companies for one-fifth. Compared with 1975, the picture looks as follows:

Distribution of sales electrotechnical and electronics industry

	1975	1980
Headquarters in the USA	54	46
Headquarters in Europe	29	32
Headquarters in Japan	17	22
	100%	100%

How does the picture look if we now confine ourselves to the electronics industry? In other words, a sector that comprises consumer electronics, semiconductors plus components and industrial elec-

tronics. Its world production is estimated at \$ 250 billion. The combined share of the USA, Europe and Japan is \$ 180 billion.

Taking our differentiation one stage further, we shall confine ourselves to "consumer electronics", which includes audio and video equipment. World production in 1980 is estimated at \$ 42 billion, with the USA, Europe and Japan accounting for some \$ 30 billion of this figure. The shifts which have taken place in five years are striking.

Japanese companies were able to increase the 40 per cent share they had in 1975 to more than 50 per cent in 1980.

The European share has dropped to one-third and that of the USA to as low as one-seventh. Among the ten largest companies for consumer electronics there are five Japanese, four European and only one American company left.

What are the causes of the shifts we have seen and what is their background? Generally speaking, the main ones are:

- The increase in Japan's technological know-how, supported by active government policy in the sixties and seventies.
- The fact that Japan's relatively vast home market is protected actively and/or passively, thus offering a good base for setting up mass-production facilities for world markets (with a strong export drive).
- The fact that the American electronics industry has largely ignored the consumer market and has concentrated on the market for industrial electronics and governmental electronics.
- The fact that European manufacturers present a divided front because of their regional tie-ups, and that most of them are therefore having difficulty in finding an adequate reply to Japanese world market strategies.

In order to form a clear idea about the development in the consumer electronics sector it is necessary to look at the developments on the demand side as well as the supply side. Both qualitatively and in greater detail. And both

retrospectively and looking ahead. The main thing that interests us is the future.

A number of characteristic developments took place on the demand side in the seventies:

- There was an increase in prosperity, coupled with shifts in the pattern of expenditure. Relatively less money was spent on the primary needs of life and more on secondary and tertiary needs such as health, holidays, factual information, education, recreation and so on.
- There was a drop in the size of the average family, as a result of the rapid growth of one and two-person households.
- There was a process of increasing individualisation.
- There was a great increase in the need for information, which can be reproduced, stored and supplied to the consumer by audio/visual products.

The growing need for information, education and recreation is one of the driving forces behind the marked increase in the consumer electronics market. This is certainly the case when it is linked to the sharply expanding need among consumers to determine for themselves where, when and what kind of information they hear and see. The consumer electronics industry has been able to respond effectively to these developments.

A similar development has taken place in the audio field. There has been a more intensive degree of specialisation, different functions in separate units—but they also illustrate the expansion that has taken place; new functions and new equipment—and integration: several functions in one unit.

Another important factor is that the use of micro-electronics has made it possible to miniaturise products.

Technological developments don't stand still. They keep moving ahead. Future developments will bring about a complete breakthrough in the monolithic structure of this product range.

The most striking example is the television set. This will gradually change from being the home cinema to being a

Mr Van der Klugt is the vice-president of N. V. Philips' Gloeilampenfabrieken.

multi-functional display screen in the "home of the future".

The future growth of consumer electronics largely depends on products that are now regarded as relative newcomers. Among these products, for which we have high expectations, are the following:

- Stereo television.
- Television with Teletext and View-data facilities.
- The video cassette recorder, where portable and stereo versions, among other things, have been added to the product range.
- Video cameras with a portable home VCR.

But there is still second group of products for which we have high expectations. They were introduced only a short time ago, or will be launched in the near future. Some examples are:

- The video disc ("Laser Vision")
- The compact disc

The integrated video camera recorder ("8 mm video").

Finally, I would like to mention a third group of products that may be expected in the longer term, say between four and five years from now. Their potential is difficult to estimate. I am thinking of:

- 'User-friendly' personal computers,
- Home aeriels for direct broadcasting satellite signals,
- Two-way cable TV,
- Original audio tape.

We are firmly convinced that it is precisely in three areas that the electronics industry of the West must seek its principal challenge. If it fails to win an important position in the markets for new and innovative consumer electronics, Western industry will indeed have to surrender more ground, and certainly do not want that.

The survival of the Western European electronics industry is at stake as long as there are a number of companies which behave relatively autonomously on the market or, in a number of cases, even adopt a strongly nationalistic attitude. Faced with the Japanese approach—the combined power behind Japan Incorporated—Europe still adopts a fragmented stance, although there are indications that changes are on the way. But manufacturers still present a divided front.

We firmly believe that the continuity of the electronics industry in Western Europe in the coming years will largely depend on the extent to which the various companies succeed in combining their forces and achieving integration and unity.

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Growing opportunities in electronics

By G. KRISHNAN-KUTTY

INDUSTRIALISATION in Kerala received a big push with the rapid pace with which the *KELTRON* made its strides. Within a period of less than a decade, the various units of the Kerala State Electronics Development Corporation made a mark in the backward parts of Kerala. The beginnings were humble; but today, these units have given opportunities for many who are employed directly and indirectly.

There were traditional industrial activities in this region; and, into its midst emerged the new industry of electronics. The coir industry, the cashew industry, and the plantations industry have passed through various stages of growth in the past decades. The role of the British in fostering these industries cannot be ignored; the nationalist environment gives its own fillip to these industries. But the electronics industry is a new industry.

How and in what ways this industry would promote the interests of the people at large was a matter of doubt for the people of Kerala. There was the political instability which this State has to face under all circumstances; it continues. The backwardness of this State has to be understood in relation to the state of politics and governmental changes in Kerala. The political consciousness of the people can sometimes be an obstacle to industrial advancement insofar as people develop suspicions about any advancement not in the interests of the people. Entrepreneurs are shy to come to Kerala for fear of closure at any moment.

However, the *KELTRON* has stood the tests and got itself established in this region where failures are common. In all the efforts to stabilise the various units of *KELTRON* there was stiff competition; but now the various units of this new venture are scattered in different parts of the State. The start was made with units of the *KELTRON* in the districts of Trivandrum and Cannanore. A big unit was built up at Mangattuparamba in the Cannanore district; this is a prestigious unit which can be said to be the first of its kind in Asia. It was in preparation for a long time; the area was a neglected part of Malabar in the past. But to-day it is a bee-hive of industrial activity.

KELTRON Controls at Aroor is another outstanding unit of the Kerala

Dr Krishnan-Kutty is professor of economics at N.S.S. College of Kerala University.

State Electronics Development Corporation. Contole Bailey, a French company, is offering the collaboration. However, it is necessary to point out that the Chairman of *KELTRON* Mr K. P. P. Nambiar is not in favour of accepting western technology for India, with all its ramifications. Adaptation and scrutiny for Indian conditions are all there; and, it is believed that Indian technicians are fully aware of this and that the fears of the past have been proved wrong. However, technical collaboration and transfer of technology are fostered to the extent possible. It is in this matter that enough expertise and sagacity have to be applied by those in charge of the unit.

Aroor is in the Alleppey district, which is a backward area in spite of its past glory. This area is near to Cochin, which is well balanced as a city, with several advantages including a good port. Land was bought at a moderate rate, and a big construction complex emerged at Aroor. Those who knew this area in the past began to wonder how such a big structure could be erected here in the course of a few years. The surrounding

areas are still the same, while a big centre has taken shape near the water-shed here. This unit thus opens out hope for the future.

Promoting quality of life

As is well known by now, electronics industry is capable of promoting the quality of life of people by providing articles of consumption, like radios, television sets and other equipment. These electronics products are useful to people of all walks of life; they are so numerous that their usefulness cannot be limited. In other parts of the world, electronics could make a big impact; and, it can reasonably be hoped that such an impact can be made in Kerala also. There is the big promise of the electronics industry offering employment opportunities, both directly and indirectly. In Kerala where unemployment is a big problem, this is a matter for consolation.

There is the agricultural sector in Kerala, as in the rest of India. And, it is only reasonable to imagine the impact of a new industry upon the traditional



Keltron's rectifier plant at Trichur

sector. Land reforms have been introduced in Kerala with the objective of bringing about equitable distribution of land and social justice; Kerala has given a model also to other parts of the country. When so much is being done in the tertiary sector, the importance given to industrialisation is debatable issue. There is also the problem of agro-based industries in this region.

The new electronics industry has to force ahead amidst these competing demands of the socio-economic structure of Kerala. The progress which electronics industry can make in Kerala will depend upon the development of other sectors in the economy also. It cannot be a lopsided development where a new industry makes headway, giving only little attention to other competing sectors of which the economy is made. The discussion of industrialisation *versus* agriculture is still going on; and the relevance of this to developing regions is of paramount importance. In the case of a new industry the matter is more significant. It is here the economists of the country have to dispute the good intentions of the experts in electronics. Industrialisation is a field where the best talent has to be manifested, in all possible ways. Politicians cannot have the upper hand in such matters, as is sometimes the case.

Tradition-bound society

And, there is the need for the acceptance of the electronics equipment in a tradition-bound society where people prefer to stick to the old ways which have stood the test of time. It cannot be set aside as superstition or ignorance. The old beliefs and customs have their sway upon the minds of people; even those who have received the best education cling to the old ways. The *nila vilakku*, for example, is still having its honoured place in the Kerala society. There are cultured people who cannot switch on a radio, though they are prolific writers. Those who are enthusiastic about the dawn of electronics cannot ignore these aspects of the culture of the people. Modernisation is always accepted, but to cast aside the traditional ways of living is dangerous.

While welcoming the dawn of electronics, it is necessary to spell out the disadvantages of too much enthusiasm for a new industry. But, at the same time, the progress of electronics has to be watched with interest and curiosity. The all-women's co-operatives can be an innovation which is bound to produce good



An assembly line at Keltron

results. Twenty such co-operative societies have already gone into productive activities; radios are manufactured in this way by using rural expertise. Labour in Kerala, according to Mr Nambiar, is hard-working though there are spells of strike; in Kerala, it is alleged, that strikes are politically motivated. It can be rightly believed that the labourers in Kerala, in spite of rude behaviour and manifestation of barbarism, will contribute to the success of a new industry.

KELTRON has plans for the future. According to Mr Nambiar **KELTRON** can achieve a turnover of Rs 1,000 crores by 1990. Again, the total turnover of the Indian electronics industry by the same year can touch the figure of Rs 10,000 crores. These are ambitious figures which fire the imagination of some and the ridicule of the cynics. The targets in physical terms may or may not be achieved; but the quality of life of people remains uppermost in the minds of thinking people. The **KELTRON** has established itself as a big enterprise in Kerala and now it is for people to say how much

benefit has come to them from this experiment. This is more so in Kerala where socialism has made its impact in recent years.

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Threat of piracy

By ANIL SUD

MUSIC is as old as man—certainly 3,000 to 4,000 years old in India in a recognizable, demonstrable form. But all those sounds and voices were lost in wilderness till Edison invented his tin foil phonograph in 1877. From a mere scientific curiosity, a dictaphone,—the first recorded sounds were 'Hello' and 'Mary had a little lamb'—it turned out to be the most significant discovery since printing (15th Century). The impact of recorded sound was manifested in:

- (a) liberation of music from concert halls and palaces to millions of homes; (b) preservation of sound and music for posterity; and (c) educational value of sound recordings.

The history of recorded music in India is the history of Gramophone Company (HMV). The company was started in India in 1901, just three years after the first Gramophone Company was set up in the UK. Its most famous trade mark—the dog and gramophone—has been a household name in India for decades.

In 1907, T.W. Gaisberg came aboard Coromandal, waded with a few hundred blank wax cylinders (for recordings) to set the first footprints, and thus began HMV's romance with the first recordings.

This unique Englishman did not get lost in the 'koi hai' culture and received no help from his English predecessors who were "living on another planet, playing bridge, 16 Annas to the Rupee and sun-downing scotch on the rocks."

Gaisberg was looking for *local* talent and his search was difficult. People in those days did not fancy male baritone or bass voices, but preferred men with effeminate voices or female artistes, and the latter could be found only in the 'Entertainment' district of Calcutta, not in "respectable" (?) homes. It is in this 'Entertainment' district, that Gaisberg found his first recording talent—Goura (later Gauhar) Jan, an Armenian Jewess who could sing in 20 languages, charged £20 for a concert, spent £1200/- on her cat's wedding (in 1907!) and never wore the same jewellery twice! Rich talent! She knew her market value and Gaisberg her talent.

A good start was meanwhile made with gramophones being sold for Rs 69/75 and a dozen records for Rs 110.00! Other artistes followed Janki Bai (£300 concert fee) who used to end her recor-

ding with 'I am Janki Bai', in English, Miss Dulari, Pearu Qawaal and others.

The Gramophone Company's factory was shifted to Dum Dum in 1928 and the romantic era of recording gave way to the electric and electronic age—impressive, but not a chronicler's delight.

The first electric recording was made in 1920, the first stereo recording came in 1931, and the first film soundtrack appeared on records in 1930. Since then Indian music has been inextricably linked with Indian films. In 1934 BASF produced the first magnetic tape and in the 1950s the microgroove LPs appeared, giving the record almost a lifetime playing durability.

The future will see the fall out from a technological burst—the video disc, the laser tracked audio disc, multitrack digital recordings, making the whole scene very, very hifi. Mini and microisation will also be the signature tune of the future.

The ripple effect of these technological advancements—spearheaded by the Japanese, has been a crippling blow to the recording industry. The ease with which tapes can be erased and copied, has made it possible for the unscrupulous pirate and the home taper to revel in unauthorised taping of copyrighted recordings.

Polydor (now Music India Ltd.) joined the fray in 1969, Indian Record Mfg Co Ltd in 1973 and CBS/Tata in 1982. Apart from these four 'composite' companies (companies making recordings, records and cassettes) there are several companies who record and market their own music but use the manufacturing facilities of other companies.

Market size:

The music business is gigantic abroad as it is miniscule in India, as shown in Table 1.

Table 1: Music business abroad

		7"	LPs	Cassette	Total Value	%
USA	(in million \$)	246	2113	1267	3626	48
Japan	—do—		755	401	1156	15
UK	—do—		568	166	734	10
France	—do—		Break-up not available		880	11
W. Germany	—do—		—do—		1200	16
Total	—do—				7596	100
Indian	(in million Indian Rupees)	44		(in Indian Rupees)	71630	
			111	15	170	

We look tiny, internationally, but this statistical perspective has, however, to be corrected to relate the sales to the total population of sound playing/reproducing equipment. To illustrate, in USA 84 per cent of the population over 10 years of age (185 million) has access to audio equipment and 62 per cent have both a record and a cassette player. The U.S. Audio Consumer Equipment is valued at \$3800 million at wholesale prices! To sell a million records in USA (Gold) achieves a small penetration. On the other hand, in India, the population of record player and records is about 5—7 million and to sell 1,00,000 (Gold) is to achieve a higher penetration and is a more impressive performance. Apart from this, one has to keep in mind that in developed countries it is an 'elitist' product, a fallout of leisure affluence; in India, the demand is greatly limited by the low purchasing power of the 'persistent proletariat'. It is the first casualty—postponable and substitutable buy in a consumer's expenditure pattern. If you are hooked on to reading 'Thornbirds', you have to buy it but if you are hooked on to 'Disco Deewane', you can tape it off another record/tape, if need be.

Indian scene

The Indian market has seen real growth in the last 10 years, primarily due to the emergence of cassettes, competition and innovative marketing. The overall size of the market with market shares of three companies is shown in Table 2.

Marketing promotion

Great strides and leaps have been made in serious marketing of music as a consumer product, in recent years, replacing earlier efforts characterised by spasms of courageous gimmickry. The best example of spectacular marketing success is 'Disco Deewane' featuring

Mr Sud is managing director of Gramophone Company of India.

Nazia and Zoheb Hassan, produced by Biddu. This record has been released in over 20 countries, has sold the highest amongst all film/non film records double platinum (4,00,000 LP/cassette units in just over a year) and still features on the top sellers list. Here, the marketing challenges were:

- Can an artiste, relatively unknown and not living in India, be promoted without concert appearances?
- Can a concept of Hindi disco be promoted without a film support?

An A to Z marketing plan, backed up by multimedia publicity and high level motivation, heralded the release of the disc which was just like the launching of a major consumer brand. The rest is history, and since then a burst of creativity and marketing has characterised the music industry's efforts.

The case history of 'Disco Deewane' proved that

- given a good product, even fresh talent can be promoted and sold impressively with planned marketing and promotion;
- we can crack the international market with our music. Disco Deewane has been released in over 20 countries and had gone 'Gold' in Mexico and Peru, in its original version!

There is a surge of creativity in the industry and with colour television and video, growing media interest and emergence of an 'act'—artistes 'performing' on stage and not just 'singing'—the present music scene is a challenge and an opportunity for the creative and marketing men of this industry.

Twilight aspects

It is unfortunate that the music industry is seldom taken as a 'serious industry' and is often dismissed as a 'fun' business. Apart from every problem that this industry shares with any other in manufacturing, personnel, marketing and legal aspects, let us look at some of our special 'nightmares':

- It is a 'high risk' business, catering to a highly 'mercurial' and unpredictable consumer taste.
- Despite special creative resources, years of track record, market surveys, feedbacks and empirical data, no one has a 'sure shot' formula or a pair of 'golden ears'. It remains a 90:10 failure to success ratio business, floating hundreds of trial balloons to get that magic 'gold or platinum' disc.
- A record is perhaps one of the few products that is required yesterday and is obsolete tomorrow, the 'impulse' motivation of the consumer having moved to some other at the right 'psychological' moment.

Table 2: Indian music market

SALES	TOTAL			GRAMCO			MIL			INRECO		
	Unit ('000)	Value (Rs '000)	%	Unit ('000)	Value (Rs '000)	%	Unit ('000)	Value (Rs '000)	%	Unit ('000)	Value (Rs '000)	%
LPs	4437	111221	100	3319	82950	74	996	25054	23	122	3217	3
7"	4297	43756	100	3300	32865	75	672	6904	16	325	3987	9
Cassette	623	15359	100	583	14273	93	24	673	4	16	413	3
TOTAL	9357	170336	100	7202	130088	76	1692	32631	19	463	7617	5

Piracy

The industry experienced a big growth leap in the early '70s but suffered a big setback with the rapid and rampant growth in piracy, primarily in cassettes. The pirate sector has an 85 per cent market share of total cassettes sales in the country. Piracy is growing and flourishing because of

- The emergence of cassette players and cassette tapes, facilitating easy duplication of copyrighted recordings.
- The virtual non-enforcement of the copyright laws.
- The fiscal policies which are unfavourable to legitimate companies.

Piracy is nothing but common theft, depriving the creative community—authors, artistes, producers and record companies—of their legitimate royalties and earnings and the public exchequer of vast revenues through evasion of excise duties, sales tax, and corporate tax. Such anti-social activities can only be curbed

—never eliminated—by

- a 'political will' and determined enforcement of laws;
- more liberal fiscal policies to protect the industry as in Pakistan.
- the industry's continued efforts to fight pirates on a commercial plane through sensible pricing and carefully chosen programmes on discs and cassettes.

In the present environment, the industry can never hope to compete against the pirate who never creates anything original, does not incur any recording, advertising costs, avoids payment of royalties to copyright owners and statutory levies to government and never takes a risk (he copies the best and the most popular numbers). Without the government's active and committed support, the industry faces imminent extinction. Hongkong and Thailand are just two examples where a 95 per cent pirate situation has been completely reversed with active government support and initiatives. Sadly, there are no indications of such support forthcoming and the industry faces its bleakest hour.

Production of selected items of entertainment electronics in India*

					('000 number)				
Year					Radio receivers	Television sets	Record players	Tape recorders	Amplifiers and PA systems
1971	..	..	..	..	3,020	16.0	—	—	—
1972	..	..	..	..	3,020	30.7	88.0	36.0	83.7
1973	..	..	..	..	2,620	75.1	—	—	—
1974	..	..	..	..	3,460	75.7	127.9	35.1	107.5
1975	..	..	..	..	2,520	96.9	138.2	50.3	119.0
1976	..	..	..	..	2,980	143.5	119.1	70.0	138.9
1977	..	..	..	..	3,760	239.0	128.5	112.8	142.6
1978	..	..	..	..	4,420	270.0	131.0	151.0	148.0
1979	..	..	..	..	5,130	311.0	153.0	179.0	151.0
1980	..	..	..	..	5,810	370.0	142.0	302.0	154.0

* Includes production in organised and small-scale sectors.

- SOURCES: 1. Publication & Information Directorate, CSIR, Industrial News Digest, various issues
2. Information, Planning & Analysis Group of Electronics Commission, Electronics Information & Planning, various issues
3. Government of India, Department of Electronics, Annual Report, 1979 and 1980-81
4. Directorate General of Technical Development (DGTD), Annual Report various issues

There was really no need to run this ad.

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Profit after tax	4.3	6.0	4.8	3.8	4.6
Gross Block	67.1	70.1	72.9	85.4	94.5
Net Block	30.4	28.9	27.1	34.2	38.5
Share Capital	18.0	18.0	18.0	24.0	24.0
Reserves	19.1	23.2	25.1	20.1	21.5
Earnings per Share (Rs.)	24.2	33.3	26.9	16.0	19.0
Dividend per Share (Rs.)	14.0	16.0	16.0	12.0	14.0

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- Will be treated as public security for investment by Charitable Trusts

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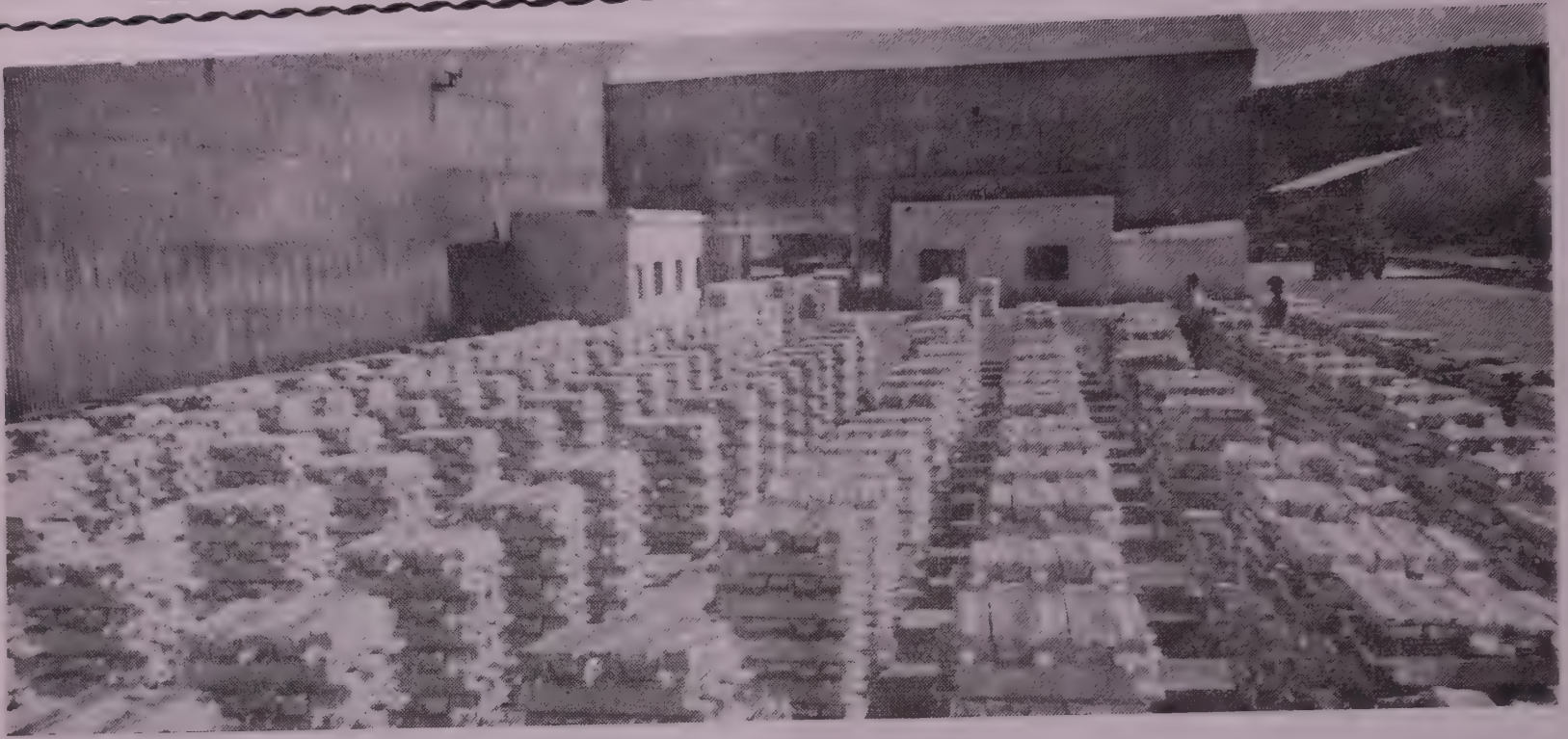


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Aluminium ingots at Indian Aluminium Company's Belgaum smelter

ALUMINIUM

From famine to glut

—A Commerce Research Bureau survey

AMONG the non-ferrous metals, aluminium occupies a place of pride. It has a wide range of applications in industries like power generation, transport, building and construction, consumer durables such as utensils, and packaging. The properties that make aluminium such a versatile metal are lightness, favourable strength to weight ratio, corrosion resistance, high reflectivity and thermal conductivity. In view of its wide range of applications, aluminium has come to play an important role in the development of industrial economies all over the world. The other non-ferrous metal that comes closest to aluminium in terms of the versatility of applications is copper. However, copper is available in much less quantity than aluminium in view of its lower reserves. Hence, aluminium is expected to maintain its place as an important non-ferrous metal in the future too.

India's place

The world aluminium industry has been dominated by the US, the USSR, Japan and Canada. These four countries together have been accounting for a sizable proportion of the world production of this metal. In 1970, for example, these

countries accounted for as much as 66 per cent of the world production of aluminium. Though in 1980 their share had come down to 56 per cent, they still constituted an important group of producers.

Over a period of time, India's share in the world production of aluminium has declined. Between 1970 and 1980, the world aluminium production rose from 96.54 lakh tonnes to 153.58 lakh tonnes. India's aluminium production during the period increased from 1.61 lakh tonnes to 1.85 lakh tonnes. Notwithstanding this increase, India's share in the world production dropped from 1.7 per cent in 1970 to 1.2 per cent in 1980. What is more significant, India's rank among the world's major aluminium producers slid down from eighth in 1970 to sixteenth in 1980 (Table 1).

Birth

The aluminium industry was launched in India in 1943, when the first aluminium ingot from alumina made in India was turned out by the Aluminium Corporation of India Limited, a company registered in 1937. The unit had a capacity of 3,000 tonnes of aluminium per year and

relied on steam power. The production in 1943 was of the order of 2,000 tonnes. The associated alumina plant had commenced operations in October 1942. Another unit, the Indian Aluminium Company Limited, had started producing aluminium a year earlier but due to the problems caused by the Second World War, had to use imported alumina.

India had been importing sizable amounts of aluminium and its products in the thirties and the forties. During the decade ending 1938, India's imports of aluminium in the form of unwrought ingots, circles, sheets, and other products averaged 3,636 tonnes per year. During the three years ending 1946, these imports increased to 5,423 tonnes per year, valued at Rs 88 lakhs. In 1950, India imported 7,052 tonnes of wrought and unwrought aluminium, valued at Rs 2 crores. In the initial years of the development of the industry in India, collaborations with units in countries like Switzerland, United States and Canada were permitted with a view to giving the indigenous industry the benefit of know-how developed in other countries. Import of equipment on a large scale was also allowed.

Trends

Between 1950-51 and 1952-53, the installed capacity for the production of aluminium in India was four thousand tonnes per annum (Table 2). By 1954-55, this capacity increased to 7,500 tonnes but then remained unchanged at that level till 1957-58. New capacity of about 10,000 tonnes was added in 1958-59, bringing the total capacity to 17,496 tonnes. In 1959-60, the installed capacity in the aluminium industry was 18,192 tonnes. In the fifties, the installed capacity increased at the compound growth rate of 18.3 per cent per annum.

The decade of the sixties opened with an installed capacity of 22,116 tonnes of aluminium per annum. In 1961-62 more than 30,000 tonnes of capacity was added, taking the total capacity to about 53,000 tonnes. In 1964-65 another 20,000 tonnes was added by way of new capacity. From 1965-66 to 1969-70, further capacity of different magnitudes was added every year with the result that in 1969-70, the installed capacity for the production of aluminium was of the order of 1,31,000 tonnes per annum. The decade of the sixties witnessed a compound growth rate of 21.8 per

Table 2: Trends in aluminium industry in India

Year	Capacity (tonnes)	Production (tonnes)	Capacity utilisation (%)	Imports (tonnes)	Total availability (tonnes)	Share of imports in total availability %
1950-51	4,000	4,045	101.1	10,800	14,845	72.8
1951-52	4,000	3,967	99.2	9,500	13,467	70.5
1952-53	4,000	3,476	86.9	5,200	8,676	59.9
1953-54	7,008	3,908	55.8	5,600	9,508	58.9
1954-55	7,500	5,564	74.2	12,600	18,164	69.4
1955-56	7,500	7,450	99.3	16,100	23,550	68.4
1956-57	7,500	6,836	91.1	26,100	32,936	79.2
1957-58	7,500	8,015	106.9	23,200	31,215	74.3
1958-59	17,496	10,287	58.8	14,800	25,087	59.0
1959-60	18,192	18,011	99.0	16,800	34,811	48.3
1960-61	22,116	18,317	82.8	25,400	43,717	58.1
1961-62	53,340	19,883	37.3	25,600	45,483	56.3
1962-63	53,328	42,639	80.0	38,900	81,539	47.7
1963-64	53,328	55,779	104.6	24,700	80,479	30.7
1964-65	73,320	55,121	75.2	22,900	78,021	29.4
1965-66	88,500	62,058	70.1	20,300	82,358	24.6
1966-67	93,000	72,959	78.5	32,900	1,05,859	31.1
1967-68	1,15,000	1,00,362	87.3	38,800	1,39,162	27.9
1968-69	1,17,000	1,25,284	107.1	9,800	1,35,084	7.3
1969-70	1,31,000	1,35,054	103.1	2,500	1,37,554	1.8
1970-71	1,56,000	1,68,784	108.2	6,386	1,75,170	3.6
1971-72	1,73,000	1,81,485	104.9	1,200	1,82,685	0.7
1972-73	1,95,170	1,75,786	90.1	1,464	1,77,250	0.8
1973-74	....	1,47,847	..	1,212	1,49,059	0.8
1974-75	2,10,170	1,26,551	60.2	2,268	1,28,819	1.8
1975-76	2,46,170	1,85,000	75.2	828	85,828	0.4
1976-77	2,66,000	2,09,000	78.6	8,232	21,17,232	3.8
1977-78	2,91,000	1,81,000	62.2	17,324	1,98,324	8.7
1978-79	3,21,170	2,14,000	66.6	33,000	2,47,000	13.4
1979-80	3,21,170	1,92,000	59.8	85,788	2,77,788	30.9
1980-81	3,21,170	2,00,000	62.0	1,20,813	3,20,813	37.7
1981-82	3,21,170	2,07,000	64.5	33,000*	2,40,000	13.8

Table 1: World production of aluminium: 1970 and 1980

('000 tonnes)

Country	1970	1980
United States	3,607 (37.4)	4,654 (30.3)
USSR	1,100 (11.4)	1,787 (11.6)
Japan	733 (7.6)	1,091 (7.1)
Canada	973 (10.1)	1,068 (7.0)
Norway	523 (5.4)	651 (4.2)
France	381 (3.9)	432 (2.8)
Spain	120 (1.2)	386 (2.5)
UK	40 (0.4)	375 (2.4)
China	127 (1.3)	363 (2.4)
Venezuela	23 (0.2)	313 (2.0)
Australia	206 (2.1)	304 (1.9)
Italy	146 (1.5)	271 (1.8)
Netherlands	75 (0.8)	259 (1.7)
Brazil	57 (0.6)	256 (1.7)
Romania	102 (1.1)	241 (1.6)
India	161 (1.7)	185 (1.2)
World total (including others)	9,654	15,358

Note: Figures in brackets indicate percentages to totals.

(..) = Not available

-- = Estimated

cent per annum in the production capacity for aluminium.

In the seventies, sizable additions were made to the production capacity for aluminium. In 1971-72, a capacity of 17,000 tonnes was added and in the next year, a further capacity of more than 22,000 tonnes was created. In 1974-75, the installed capacity was a little more than 2,10,000 tonnes to which another 36,000 tonnes were added in 1975-76. The year 1976-77 saw a further addition of 20,000 tonnes to the capacity whereas another 25,000 tonnes were added in 1977-78. With the addition of another 30,000 tonnes, the decade of the seventies closed with a total installed of 3,21,170 tonnes of aluminium per annum. On the whole, in the decade of the seventies the installed capacity for the production of aluminium increased at a compound growth rate of 9.4 per cent per annum. In the decade of the eighties no new capacity for the production of aluminium has so far been added.

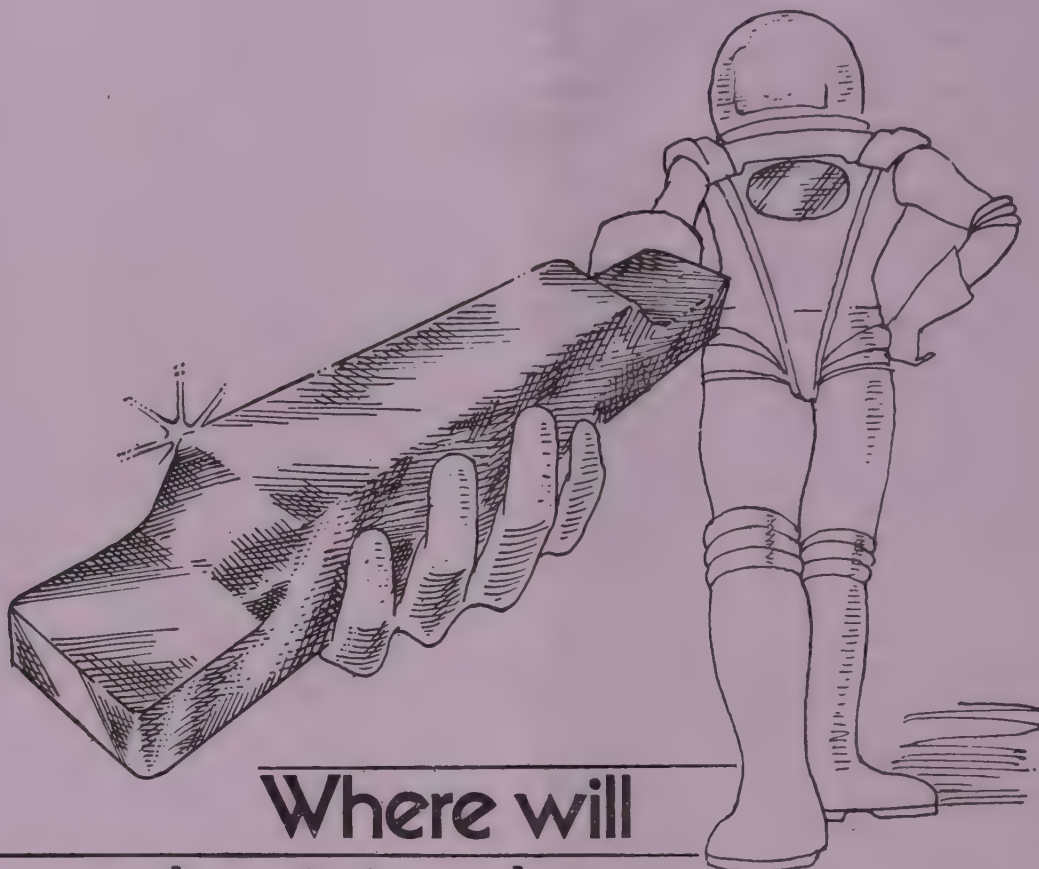
Production

In the first few years of the fifties, the production of aluminium

fluctuated between three-and-half to four thousand tonnes per annum. In 1954-55, the production was a little more than five and a half thousand tonnes. Thereafter, the production of aluminium increased continuously and in 1959-60, it was around 18,000 tonnes. In the fifties, the production of aluminium increased at the compound rate of 18.1 per cent per annum.

The increased trend witnessed since the mid-fifties continued till 1963-64 when production was 55,779 tonnes. There was a slight fall in 1964-65 but again production picked up from 1965-66 and reached 1,25,054 tonnes in 1969-70. In the sixties, production of aluminium increased at the compound rate of 22.3 per cent per annum.

The years of the seventies witnessed quite a few fluctuations in the production of aluminium. Between 1970-71 and 1972-73, the production increased from 1,68,784 tonnes to 1,75,786 tonnes but declined in the next two years to 1,26,551 tonnes in 1974-75. After increasing to more than two lakh tonnes in 1976-77, it came down in 1977-78, only to rise



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once again to more than two lakh tonnes in 1978-79. In fact, the production of 2,14,000 tonnes, achieved in 1978-79, was an all-time high for the Indian aluminium industry. In 1979-80, production was 1,92,000 tonnes. In the last two years, it was around two lakh tonnes. The growth rate in the production of aluminium in the years of the seventies was 3.5 per cent per annum.

Along with fluctuations in production of aluminium, one could also witness fluctuations in capacity utilisation in the aluminium industry. From more than 100 per cent in 1950-51, capacity utilisation came down to 56 per cent in 1953-54. Having increased to 107 per cent in 1957-58, it came down to an all-time low of 37 per cent in 1961-62. In 1963-64, capacity utilisation was again more than 100 per cent, a phenomenon repeated four times between 1968-69 and 1971-72. In the late seventies, however, capacity utilisation was somewhat lower, never exceeding 79 per cent between 1975-76 and 1978-79. Even in 1981-82, capacity utilisation was 65 per cent.

Imports

Until the advent of the seventies, India was resorting to heavy imports of aluminium to meet the gap between domestic demand and supply. Though the imports came down from a little more than 10,000 tonnes in 1950-51 to 5,200 tonnes in 1952-53, they again increased to more than 16,000 tonnes in 1956-57. In 1959-60, India imported 16,800 tonnes of aluminium which went up to nearly 19,000 tonnes in 1962-63. A similar magnitude of imports of aluminium was witnessed in 1967-68.

In the seventies, imports of aluminium in India came down sizably from the large quantities imported in the earlier decades. Between 1971-72 and 1975-76, India imported, on an average not more than 1,500 tonnes of aluminium per year. The import of 828 tonnes of aluminium in 1975-76 was the lowest since 1950-51. However, imports started rising again after 1975-76 and increased to more than one lakh tonnes in 1980-81.

The total availability of aluminium in India increased from less than 10,000 tonnes in 1952-53 to nearly 3,000 tonnes in 1956-57. In 1962-63, total availability was a little over 1,000 tonnes. It increased to more than one lakh tonnes in 1966-67 and further to 1,82,685 tonnes in 1971-72. The total availability at 3,20,813



A view of the aluminium foil plant at Kalwa, near Bombay.

tonnes in 1980-81 was the highest since 1950-51.

Till the late sixties, imports of aluminium constituted significant proportions of the total availability of this metal in India. In the first few years of the fifties the share of import in the total availability of aluminium varied roughly between 60 per cent and 70 per cent. It increased to an all time high of 79 per cent in 1956-57 but then started declining rapidly. In 1967-68, imports constituted 28 per cent of the total availability of aluminium and declined to less than one per cent in the initial years of the seventies. Since 1976-77, however, the share of imports in the total availability started rising once again. In 1980-81, imports constituted 38 per cent of the total availability.

Consumption

Although in absolute terms the consumption of aluminium in India has increased substantially, the per

capita consumption in India is still much lower than in some of the advanced countries. In 1980, the per capita consumption of aluminium was 0.3 kg in India as against 10 kg in Canada and 17 kg in the US.

The structure of sectoral consumption of aluminium in India differs widely from that in other countries, particularly the developed ones. In India, the power sector accounts for the largest amount of aluminium consumption followed by the consumer durable sector. The transport sector also accounts for a sizable consumption of aluminium. On the other hand, in countries such as the United States and the United Kingdom, the major chunk of aluminium is consumed by packaging, building and construction and transport sectors (Table 4).

Price and distribution

The aluminium industry has been under a price control since 1968. Between 1975 and 1978, the

Table 3: India's aluminium industry: Unitwise details

Unit	Location	Installed capacity (tonnes per annum)
1. Bharat Aluminium Co. (BALCO)	Korba, Madhya Pradesh	1,00,000
2. Indian Aluminium Co. (INDAL)	a) Hirakud, Orissa b) Alwaye, Kerala c) Belgaum, Karnataka	20,320 15,850 60,000
3. Hindustan Aluminium Corporation (HINDALCO)	Renukoot, Uttar Pradesh	1,00,000
4. Madras Aluminium Co. (MALCO)	Mettur, Tamil Nadu	25,000
Total		3,21,170



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Table 4: Sectorwise consumption of aluminium

Sector	(Per cent)		
	USA	UK	India
Power	10	11	52
Consumer durables	6	10	20
Transport	16	23	10
Canning & packaging	23	20	5
Building & construction	18	16	13
Others	27	20	
Total	100	100	100

government had introduced a policy of dual pricing for aluminium. Under that policy, the prices of EC grade metal were controlled along with the stipulation that producers must supply 50 per cent of their production in the form of EC grade metal for meeting the requirements of the power sector. However, within a year of its working, the scheme ran into rough weather with producers complaining about rising cost of production and the inadequate price realisation on EC grade of aluminium. Simultaneously, the prices of CG metal were raised frequently, apparently to compensate the losses made on EC grade metal. In October 1978, the government gave up the dual pricing policy and brought aluminium industry under full control. Under the full control, the Union Government has been fixing the retention prices for aluminium producers as also the retail prices for the EC and CG aluminium.

The last revision in these prices was made in December 1981, when the retail prices were raised from Rs 18,492 per tonne to Rs 18,679 for commercial grade ingots; from Rs 18,636 per tonne to Rs 18,801 for electrolytic conductor grade aluminium and from Rs 19,475 per tonne to Rs 19,501 for aluminium wire rods. Simultaneously, the average retention prices for ingots were fixed at Rs 14,485 per tonne for Indian Aluminium Co Ltd, Rs 14,365 for Hindustan Aluminium Company, Ltd, Rs 18,051 for Bharat Aluminium Co Ltd, and Rs 15,472 for Madras Aluminium Co Ltd. Prior to this, the prices were raised in March 1981.

The aluminium producers have been complaining that the prices granted to them are inadequate. According to them, the prices decided upon by the government are based on a formula suggested by the Bureau of Industrial Costs and Prices (BICP) on the basis of a study conducted by it in 1978. The producers contended that this basis is now outdated. They have demanded an automatic escalation in prices in view of the continuously rising cost of raw materials.

From famine to glut

Only about a year back, aluminium was reported to be in a severe shortage. However, within a year, the situation has taken a complete U-turn and now aluminium glut has appeared. In the beginning of 1981-82 the MMTC was preparing itself for the import of about one lakh tonnes of aluminium. But the stocks of unsold aluminium started piling up from January 1982. By June the MMTC had a stock of 26,000 tonnes comprising 16,000 tonnes of EC metal and 10,000 tonnes of CG metal. In addition, 20,000 tonnes of aluminium was lying unsold with the industry. Against 80,000 tonnes of EC grade and 40,000 tonnes of CG metal sold by MMTC in 1980-81, it could sell only 19,000 tonnes of EC grade and 10,000 tonnes of CG metal in 1981-82.

The prime reason for this glut of aluminium appears to be a fall in demand for the metal. According to official estimates, the demand was expected to go up from three lakh tonnes in 1980-81 to 3.40 lakh tonnes in 1981-82. However, the actual demand, which rose from 2.46 lakh tonnes in 1979-80 to 3.05 lakh tonnes in 1980-81, was subsequently estimated to have slumped to 2.40 lakh tonnes in 1981-82.

The demand estimates have gone awry, largely because of the fall in the off-take of the metal by the state electricity boards (SEBs). The SEBs, which are the major consumers of the EC Grade metal, have been in a financial mess and have inadequate funds to pick up the metal.

According to the producers, the major problem area in this context is the stipulation by the government for the production of the two categories of aluminium in 50:50 ratio. According to them, the demand for EC grade metal has suffered for want of funds with the SEBs while the demand for CG metal is fairly good.

Buffer stock for aluminium

The aluminium industry has been under a price control since 1968. However, it appears doubtful whether the industry or the consu-

mer have obtained any sizable benefit out of the control. The Committee on Controls and Subsidies had found that the benefit of the price control on aluminium had accrued mainly to the trade. As the committee noted, the companies producing aluminium suffered while middlemen reaped the benefit of a blackmarket in EC grade aluminium.

The committee had suggested that while the pooled price arrangement should continue till new capacity is set up the system of separate retention prices could be gradually relaxed, with special excise concessions to new units to compensate them for their high capital costs.

The committee had also suggested that a buffer stock of aluminium should be built up, if necessary with imported aluminium in order to get over temporary difficulties that may arise from power cuts. A buffer stock of about 20,000 tonnes was recommended for this purpose. In fact, the industry and the trade have also been demanding such a buffer stock, though there have been no signs that the Union Government is moving in this direction.

Aluminium in Sixth Plan

The Sixth Five Year Plan (1980-85) proposes to raise the installed capacity for the production of aluminium to 3.50 lakh tonnes by 1984-85, the terminal year of the Plan period. The target of production has been fixed at three lakh tonnes. However, the Plan itself has estimated the demand for aluminium to rise to 4.50 lakh tonnes by 1984-85 and has contended that heavy imports of this metal would have to be continued, at least during the Plan period.

The programmes envisaged by the Sixth Plan for aluminium include:

- (i) Completion of existing schemes;
- (ii) investment in mining and smelter capacity;
- (iii) establishment of a large alumina/aluminium complex in Orissa; and
- (iv) examination of the possibility of setting up another alumina/aluminium project in Andhra Pradesh.

New capacity

The deposits of bauxite, the primary raw material for the production of aluminium, have been discovered at many places in India. Based on these deposits, India could expand sizably its industry.

The discovery of large deposits in Andhra Pradesh led the Union Government to examine the feasibility of setting up an alumina plant at Vishakhapatnam. A collaboration with the USSR was sought for this purpose. Recently, a Soviet team is reported to have submitted a detailed feasibility report for this proposed plant. The report has envisaged a capacity of between six and eight lakh tonnes of alumina per year. However, the crux of the report is that it has emphasised the export of bauxite, which goes against the Union Government's policy. The Soviet team is reported to have proposed to finance the project through the export of bauxite over a period of five years in the total project period of eight years. The Sixth Five Year Plan has made a token allocation of rupees one crore for this project. Thus, the future of this project hangs in balance.

Another proposed project that could not materialise was the Ratnagiri project. This project was approved by the Union Government in 1974 with a cost of Rs 78 crores. It envisaged an alumina plant with an annual production capacity of one lakh tonnes and an aluminium smelter with 50,000-tonne capacity. The project was not included in the Fifth

Plan for want of resources. Now, after eight years, the government has asked the Mineral Exploration Corporation to prepare a plan for fresh assessment of the bauxite reserves in Ratnagiri.

The only addition to India's aluminium producing capacity in the near future would be through the plant coming up at Orissa, with French collaboration. The plant is being set up under the management of National Aluminium Co Ltd (NALCO), a body created for this project, at an estimated cost of Rs 1,242 crores. It would have an aluminium smelter with an annual capacity of 2.18 lakh tonnes. It would also produce eight lakh tonnes of alumina per year. The plant, according to the latest estimates, would be ready by 1986 and would reach the rated capacity by 1987.

In addition, a feasibility study has also been completed for a three-lakh tonne alumina plant in Kutch in Gujarat.

Bauxite

India has rich reserves of bauxite, the basic raw material for aluminium. The total bauxite reserves of all grades in India were placed at 2,190 million tonnes in 1975. Accord-

ing to an estimate, at the average rate of consumption in the past few years, the reserves of bauxite that India possesses would last for more than 150 years. Production of bauxite in India went up from 3.87 lakh tonnes in 1961 to 19.12 lakh tonnes in 1981 (Table 5). The major bauxite-producing states in India are Bihar, Madhya Pradesh, Gujarat, Maharashtra, Tamil Nadu and Karnataka.

Table 5: Production of bauxite in India

('000 tonnes)	
Year	Production
1961	387
1971	1,370
1972	1,496
1973	1,297
1974	1,114
1975	1,274
1976	1,449
1977	1,519
1978	1,659
1979	1,949
1980	1,775
1981	1,912

Recycling

Recycling of aluminium has come to enjoy a high priority in some of the developed countries. These countries have been recycling large quantities of aluminium from

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aluminium scrap. It has been reported that recycled scrap accounts for as much as 37 per cent of aluminium consumed in Japan, 22 per cent in the United States and 34 per cent in West Germany. Besides, the governments of these countries have plans to raise this share further in the coming years. It should be noted that recycling of aluminium requires only five to seven per cent of electrical energy required for its production. Also recycling of aluminium requires much less energy than required by some other items (Table 6). Unfortunately, no sizable recycling of aluminium has been undertaken in India.

Table 6: Energy needed for recycling different materials

Material	Kwh/Kg
Steel	1.96
Aluminium	0.80
Copper	3.79
Glass	5.13
Plastics	19.80

Technology

The need for an industry to keep abreast with the latest developments in technology can hardly be over-emphasised. Advancement in technology not only lessens the human labour but also cuts down the production cost, ensures efficiency and competitiveness.

All over the world, efforts are currently being made to reduce the power requirements of the aluminium industry. This way, the cost of production of aluminium is sought to be reduced and the production stabilised.

Consumption of power in the Indian aluminium industry is on a high side. The Bayer-Hall-Herlaut process is used by all aluminium producing units in India. Under this process the consumption of electricity for producing a tonne of aluminium should be 11,00 kwh. Though the actual consumption in the process is normally said to be 14,000 kwh the world over, in India, surprisingly enough, the consumption of electricity in aluminium production is very high, each tonne of aluminium produced by Indian manufacturing units requiring about 18,000 to 20,000 kwh of electricity.

Developments in the basic technology for aluminium production have taken place in other countries. Mention may be made of the new

smelting process developed by Aluminium Corporation of America (ALCOA).

The ALCOA process has the advantage of effecting 30 to 35 per cent saving in electrical energy consumption. A pilot plant of the capacity of 30,000 tonnes per annum based on this technology has been operating in Texas, USA.

Monochloride process, proposed by Peacey and Grinshaw of France, can produce aluminium directly from bauxite. The process claims reduction in capital and operating costs and substantial savings in energy. The process can operate on continuous closed cycles and can also run economically on a small scale.

Escalation in the cost of power generation and the non-availability of high grade bauxite has led to the adoption of cheaper and better processing, wherever possible. The Toth process based on direct reduction has thus gained popularity. Plants having this process are successfully working abroad. Adoption of direct reduction process assumes great importance because it reduces power consumption to a great extent.

Aluminium Pechiney, the French company, has set up a pilot plant in

France for researching into the possibilities of producing aluminium directly from minerals other than bauxite. It has been found that theoretically, aluminium can be extracted from clay, sandstones and a few other materials. The plant has been perfecting new electrolysis vats which are being tested in the research laboratories. The results are encouraging enough for Aluminium Pechiney to come to the industrial level exploitation stage.

Advancement has also taken place in the perfection of cheaper techniques for the conversion of primary metal into fabricated items by continuous casting and rolling process. In India, though continuous casting process is used for the production of wire rods, there is no plant for converting primary metals into sheets, strips and foils by this process, unlike in the USA or Japan.

All these suggest the inadequate R & D efforts in India in this sphere. With the rising cost of power generation, efforts should be directed to reduce power consumption in this industry, thereby cutting cost of production and making aluminium available to the masses.

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SPECIAL REPORTS

Death of INSAT

By V. S. VENKATAVARADAN

THE INSAT-1A, which had problems right from the time of its launch has breathed its last—literally because of being starved of fuel—after remaining in orbit for just 150 days. The final blow has come due to some blockade in a valve which had let out the precious fuel necessary for keeping the satellite in geostationary position.

Even during the preparation for the launch, the solar sail was damaged and was replaced. The solar sail is needed to balance the uneven spacecraft in space. The non-deployment of the solar sail had reduced the satellite's life expectancy from 7 years to 2½ years.

It appeared that INSAT-1A was fully operational on August 15, 1982. It was launched five days earlier. But soon the meteorology package failed to send cloud cover pictures. But for about a hundred telephone connections and the national hook-up of television (whose time was also reduced), the INSAT-1A failed in many of its aims.

Another sad aspect of the INSAT was that many of the ground segments were not ready for fully utilising the service of the satellite.

But the end came too soon and rather unexpected. It may take some time to find out the actual cause for the sudden loss of fuel. From available information it appears to be due to the jamming of a valve in the fuel system. With the fuel being completely lost the INSAT is dead as a dodo. However, the satellite itself will be there in space for thousands of years before plunges on to the earth (similar to the fall of Skylab). There is also a very very remote possibility of the satellite hitting another working geostationary satellite.

But why do we need the fuel for operating the satellite? Is not solar power enough? The solar cells

of the satellite give power for the operation of the electronic instruments. But to stabilise the satellite in space we need fine rocket jets using fuels like hydrazine. The amount of fuel essentially determines the 'useful' life of a geostationary satellite. Since the fuel consumption was increased due to the non-deployment of solar sail (the solar sail was meant to automatically stabilise the satellite), the expected life time of the satellite was greatly reduced.

Now that all the fuel has escaped due to the defect in a valve in the fuel system the satellite has been given up (otherwise the satellite is fully alive and one can use it if you can locate its position and if it is favourably turned towards us. However, soon it may even disappear from our view).

INSAT-1A is a component of a system with a backup satellite INSAT-1B (which is to be launched in 1983 using the Space Shuttle). Now that INSAT-1A is non-operational, INSAT-1B, when launched, will face the same problem. Without a proper backup, the satellite may create a void in many applications in the unfortunate event of its failure.

One hopes that the defects of INSAT-1A will be rectified and 1B will be more reliable. However, it will be advisable to have a backup for an efficient service. There is no major breakdown in services due to the death of INSAT-1A simply because its services were not fully utilised.

The failure of INSAT-1A will certainly make the planners think in more earnest terms about such costly ventures. It is estimated that the cost of the system (so far) runs to about Rs 300 crores (with this we could have purchased more than two million tons of foodgrains). One of the avowed objectives of the satellite was in the field of rural education. But precious little was done to carry out this in earnest. Broadcasting



Artist's concept of INSAT-1A spacecraft that did not come about

colour TV of ASIAD or TV hook up for national broadcasting (and that too such badly made programmes) do not serve the poor. Such things only benefit the rich and elite. In my view, even the microwave link up of TV stations is a sheer waste of national telecommunication capabilities.

The death of INSAT-1A puts into focus the following questions:

Will geostationary satellites be really used for the welfare of the downtrodden?

Are we to depend on foreign sources for such satellites for a long time?

Is the money spent worth it all—economically and socially?

Lest I may be taken to be a pessimist, I hasten to add: INSAT does have a potentiality for changing the society. Its power is immense. The question is how to operate it so that maximum benefits go to the poor people of India. The poor people should not be used as an excuse to have INSAT for the elites. It appears that INSAT-1A after seeing the condition of the poor masses of India from such a height decided to die of heart break for it seems to be of no use to them in any way.

Dr Venkatavaradan is director of Shri Planetarium in Bombay.

SPECIAL REPORTS

Energy from windmill

BOMBAY

THE Science and Technology Cell of the Government of Maharashtra has installed 18 windmills at various state government establishments under the National Demonstration Programme on Windmills. The programme has been initiated by the Commission for Additional Sources of Energy recently set up by Government of India to encourage promotion of renewable sources of energy.

The windmills are manufactured by the National Wind Energy R & D Centre, Institute of Engineering and Rural Technology, Allahabad. The institute has adopted the Dutch design for the windmills, which it acquired when a joint project for windmills manufacture was started by the Dutch Tool Foundation and the Organisation for the Rural Poor in 1977. Under this project, 50 windmills were set up in Ghazipur district of UP.

The windmills are designed for the lowest wind speed area in the country. Mr V. Sapre, senior scientific officer, science and technology cell, Government of Maharashtra, said, one windmill could replace a 5 hp motor or oil engine. About 5 to 6 hours wind speed in a day was sufficient to operate the windmill. About 300 windmills were to be installed throughout the country by March 31, 1982 and 23 in Maharashtra, but the installation programme has been delayed.

Mr Sapre said, the cost of the windmill was higher, but in the long run it was cheaper because there were no operational costs. The cost of the windmill is Rs 10,000 compared to Rs 7,000 to Rs 8,000 for an electric motor or an oil engine. To the actual cost of the windmill, one has to add transportation charges from Allahabad, installation cost of

Rs 1,000, and the cost of foundation work at the site ranging from Rs 2,000 to Rs 5,000 depending on the site. An additional storage tank for storing water pumped by the windmill would cost Rs 5,000 to Rs 10,000 depending on its size. Under the demonstration programme, the Commission for Additional Sources of Energy is bearing the cost of the windmill, transportation and installation. The cost of foundation work has to be borne by the user agency.

The windmill starts at 9 km per hour; at this speed it can pump 2,500 litres of water per hour. At a wind speed of 40 km per hour, the windmill can pump 25,000 litres of water per hour.

Mr Sapre said, another 100 windmills would be installed in Maharashtra in the co-operative sector. The windmills would be used for village water supply schemes. One windmill has already been installed in Naigaon village, Nasik



Multivane water pumping windmill

district, for water supply to the village.

He said, other energy options were also now being developed in India, such as the wind electricity generators. Bharat Heavy Electricals and the National Aeronautics Laboratory working on large size models. Solar drying and refrigeration were catching on and prototype had been developed for solar photo voltaic generators. The generators were available for demonstration purposes, but commercial availability would depend on the market. Similarly, solar cookers were now being used and there were plans to install solar hot water systems in hospitals, guest houses and textile mills.

Bombay spot exchange rates of currencies as on 6th Sept., 82

(Currency units per Rs. 100)

Country	Currency	Selling T.T.D.D.	Buying T.T.clean
Australia	A. \$	10.650	10.85
Austria	A. Schilling	178.70	182.00
Belgium	B. Franc	491.00	501.00
Canada	C. \$	12.810	13.045
Denmark	D. Kroner	89.80	91.60
France	Franc	72.20	73.60
Hong Kong	H.K. \$	62.30	63.55
Italy	Lira	14430	14720
Japan	Yen	2661	2709
Malaysia	M. \$	24.26	24.73
Netherlands	Guilder	28.11	28.59
Norway	N. Kroner	70.65	75.25
Singapore	S. \$	22.20	22.62
Sweden	S. Kroner	63.85	65.15
Switzerland	S. Franc	21.81	22.21
UK	£	5.9995	6.0435
USA	\$	10.340	10.445
West Germany	D. M	25.65	26.09

Source: Syndicate Bank, International Division
Central Office, Bombay-400 021

SPECIAL REPORTS

Floods ravage Orissa

BHUBANESWAR

FLOODS and droughts have been the course of Orissa for as long as one can remember. But this year these two natural disasters have been unusual in their severity. Normally, the total area liable to floods and saline inundation does not exceed 7,000 square km. This year over 8,000 km have come under flood water indicating that areas which are not usually affected by floods have reeled under water. In all, eight out of the State's 13 districts have been affected, some very severely.

This obviously is a calamity comparable to the grim situation caused by West Bengal floods five years ago. The number of people affected has been conservatively estimated at only five million and the loss of life, according to the official spokesmen, around 130. The latter figure could be a gross underestimate considering that hundreds of thousands of mudbuilt houses have been washed away and most of the floodhit districts have been totally cut off from the rest of the world. The Chief Minister, Mr J. B. Patnaik, is right in his assessment of the gravity of the disaster. It is probably the worst flood in living memory that the State has experienced.

Loss of life is certainly great and one news agency has already estimated the toll at 1,000. The casualty is of course a matter to mope about but the real task is to keep the numbers, marooned or stranded in their homes, alive. According to latest information, the two marauding rivers, the Mahanadi and its tributary Kathjuri—the latter was once threatening the safety of Cuttack town—have started receding. But it all depends how the weather gods behave hereafter. It was very heavy rain in the catchment areas of the Mahanadi and Kathjuri that started the floods. In parts of northern Orissa, where the catchment areas lie, it was something of a flash flood which must have taken the affected people unawares and the loss of life and property was consequently heavy. If

the rains pour down again, then the floods will be prolonged and with that the agony and misery of the people will be greater. The Indian Air Force and the army units are doing an excellent job in rescuing the marooned people and in dropping food packets to the stranded, but clearly there is a limit to what the military can do.

The State Government too lacks the means and the resources to afford much succour. The Chief Minister has appealed to the Prime Minister for adequate Central help and she has promptly ordered the Central Relief Commissioner to move to Orissa, which he has already done. One hopes that the Centre will really take an abiding interest in the State's misfortune such as floods and droughts and not leave it at a few crores of rupees.

As said at the beginning, Orissa, like some other states of the eastern region, is repeatedly visited by natural calamities such as floods, droughts and cyclones, often accompanied by tidal waves. But the powers that be have never tackled the situation seriously. A few flood protection works have been constructed, including the Hirakud Dam and the Delta embankment system meant principally to check floods in the Mahanadi system. But the flood menace has not really been checked. On the other hand, there is now an acute problem of waterlogging in the coastal reaches of the rivers. Especially in the irrigated coastal areas this problem is much more serious and these areas remain waterlogged for five to seven months in a year. Saline erosion is another serious problem in the coastal areas. Unless agricultural lands are protected from frequent damage by floods, waterlogging and saline erosion Orissa's agricultural future is very bleak indeed. The State Gov-

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

Item	Quality	Rs per kg				Percentage variation on September 3, 1982 over		
		Sept. 3, 1982	Aug. 27, 1982	Aug. 6, 1982	Sept. 4, 1981	A week ago	A month ago	A Year ago
Rice	Average	5.00	5.00	5.00	3.60	—	—	38.9
Wheat	Average	4.25	4.25	4.25	3.50	—	—	21.4
Jowar	Average	3.00	3.00	3.00	2.30	—	—	30.4
Bajra	Average	3.00	3.00	3.00	2.30	—	—	30.4
Gram dal ..	Average	6.00	6.00	6.00	6.50	—	—	-7.7
Tur dal	Average	7.50	7.50	7.75	6.80	—	-3.2	10.3
Potatoes ..	Average	2.50	2.50	2.75	2.20	—	-9.1	13.6
Onions	Average	1.50	1.50	1.50	1.80	—	—	-16.7
Milk per litre	Buffalo	6.00	6.00	6.40	6.00	—	-6.3	—
Tea	Average	26.00	26.00	26.00	23.00	—	—	13.0
Coffee	Average	20.00	20.00	20.00	17.50	—	—	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.70	1.70	1.55	1.55	—	9.7	9.7
Sugar	Average	4.80	5.00	5.80	6.00	-4.0	-17.2	-20.0
Gur	Average	5.50	5.75	6.25	6.60	-4.3	-12.0	-16.7
Groundnut oil ..	Average	14.80	14.75	15.50	16.00	0.3	-4.5	-7.5
Vanaspati	Average	16.50	16.50	17.00	15.00	—	-2.9	10.0
Toilet soap	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200 pages)	—	2.50	2.50	2.50	2.50	—	—	—

SPECIAL REPORTS

ernment has prepared a water plan for effective flood control in the State but it has not gone past the Central Water Commission yet.

The strengthening of the Mahanadi's embankments and construction of barrages and dams across other rivers must be taken up as a

matter of high priority. Now that the current flood has driven home the lesson that tinkering with this problem will not do much good, the authorities must take energetic measures to fulfil their commitments to the people of Orissa who epitomise the poverty of India.

WEST BENGAL

A crisis budget

From P. C. MAHANTI

CALCUTTA

THE 1982-83 budget that the West Bengal's Chief Minister, Mr Jyoti Basu, who is also the finance Minister has just presented is a crisis budget—crisis budget in the sense that it makes a desperate attempt to raise revenue anyhow to bridge a yawning gap between estimated revenue and estimated expenditure. Indeed, given the Central policy on overdrafts, Mr Basu had little choice and has spread his tax net far and wide taking coal, tea diesel, vanaspati, television, electrical appliances and even industrial inputs in one sweep.

The projected revenue income for remaining months of 1982-83 is placed at Rs 1,397 crores and the projected expenditure at Rs 1,517 crores. However, there is a surplus of Rs 117 crores outside the revenue account and the deficit comes down to only Rs 26 crores. The new taxation proposals are estimated to bring in Rs 25 crores during the remaining part of the current financial year and the net deficit comes down to only Rs 1 crore. This is balanced budgeting in a way if one leaves out of account all principles of taxation that should be normally adopted in a developing economy.

As for the tax proposals, here is the run up: Taking the tea industry first: the much criticised cess on tea of Rs 5 a kg levied under West Bengal Rural Employment Act has been revised to Rs 1.50 a kg for made tea and that on green tea has been cut from Rs 1.20 to 30 paise. The inter-state sales tax on tea levied under the relevant Central rules has been brought down to 2 per cent for sales in Calcutta and 1 per cent for those in Siliguri. As against these reliefs the tea industry has

been shocked by the levy of a 50 paise cess across-the-board on all teas auctioned at Calcutta and Siliguri.

Industry in West Bengal as a whole has had its shocks too. The concessional rate of tax on inputs and packing materials used directly in the manufacture of goods taxable under the Bengal Finance (sales tax) Act and the West Bengal Sales Tax Act has been doubled to 2 per cent. These changes are applicable to motor spirit and newspapers. However, the rate on inputs required for coal raising and power generating units would continue at the existing rate of one per cent. The tax rate on crockery, excluding crockery made from stoneware, electrical appliances, dry or preserved fruits, paper board and straw board

and vanaspati has been increased by one per cent.

Diesel gets a higher sales tax rate of 12 per cent as against the existing nine per cent; sales tax exemption on woollen hosiery, power-operated agricultural implements, sago and tapioca globules also has been withdrawn these would attract sales tax of eight per cent now. The cess on coal goes up from one to two per cent and the amount of cess on coal mines goes up from Rs 5 to Rs 7.50. And finally a bill is in the offing on how television "entertainment" can be taxed.

These in brief sum up the tax-raising proposals which in a full year are estimated to yield Rs 50 crores. There are some reliefs also. Sales tax on watches and clocks has been cut to 12 per cent from 15 per cent. The tax on ayurvedic and unani medicine has been cut from eight per cent to four per cent.

Mr Basu's plea that part of the outstanding overdraft should be converted into long-term loan and that the states deserve a better deal from the Centre in the matter of divisible pool of taxes and grants-in-aid deserves to be considered seriously and will obviously be strongly canvassed before the Eighth Finance Commission.

The political side of the budget is interesting. Mr Basu shows a remarkably cool approach to Centre-state relations and criticism wherever there was, is moderate in tone. His only complaint was that the Centre had not given sufficient aid to rebuild the State's economy shattered by drought.

Mr Basu's budget speech has announced that all outstanding loans up to March 1981 to Calcutta Corporation and other municipal bodies would be written off and that at the same time half of the net yield of the state entertainment tax would be distributed among municipal bodies to strengthen their finances. This is good politics and economics as well.

Because of the drought damage, Mr Basu apprehends that the food deficit of the State would increase to 3.3 million tonnes this year from 2.8 million tonnes last year. He expects the Centre to help again but for which the public distribution system in the State would collapse.

Unofficial foreign currency rates in Hongkong

(Hongkong \$ as on Aug. 9, 1982)

	High	Low	T.T.
Australian \$	5.86	5.82	5.9750
Belgian Franc(100)	12.00	11.00	12.985
British £	10.60	10.25	10.620
Burmese Kyat(100)	25.00	15.00	
Canadian \$	4.96	4.84	4.9770
French Franc	0.8850	0.85	0.8870
Indian Rupee(100)	51.00	49.00	65.05
West German DM	2.465	2.42	2.4965
Indonesian Rupiah (100)	0.87	0.84	
Italian Lira (100)	4.40	4.20	
Japanese Yen (100)	2.365	2.335	2.4035
Korean Won (100)	0.73	0.68	
Malaysian \$	2.59	2.55	2.6205
Netherlands Guilder	2.255	2.215	2.2765
New Zealand \$	4.40	4.30	4.5370
Pakistan Rupee (100)	4.30	3.80	5.350
Philippine Pesos	0.70	0.675	0.7225
Singapore \$	2.83	2.78	2.8590
South African Rand	4.40	4.10	5.3765
Sri Lanka Rupee (100)	27.00	22.00	
Swiss Franc	2.895	2.83	2.9400
Taiwan \$ (100)	14.60	14.30	
Thai Baht (100)	27.40	26.60	

SBI's two subsidiaries

BOMBAY

STATE Bank of India's two subsidiaries, one in Canada and the other in California, were formally inaugurated at Toronto on September 2 and at Los Angeles on September 3 respectively. State Bank of India has thus earned the distinction of operating the first subsidiaries of any Indian bank in Canada and the USA. The subsidiary at Toronto was inaugurated by Mr Pranab Kumar Mukherjee, Union Finance Minister. Mr P. C. D. Nambiar, Chairman of State Bank, inaugurated the Californian subsidiary at Los Angeles.

The State Bank had a representative office in Toronto from 1976. Consequent upon the creation of the subsidiary, the other representative office of the bank in Vancouver will become a branch of the subsidiary shortly.

With the setting up of the Canadian subsidiary, State Bank would extend its activities into retail banking and the subsidiary is expected to play a useful role in financing the business activities of Indians settled in Canada. Further, the subsidiary would serve with individuals and small to medium sized Canadian businesses throughout Canada, but more particularly in Ontario, British Columbia and Quebec. Situated as it is in an important financial centre of the world, the subsidiary would finance international trade and, in particular, Indo-Canadian trade.

The State Bank of India operates at present an agency office at Los Angeles which is engaged in wholesale lending activities but is not permitted to attract local deposits. With the establishment of the subsidiary at Los Angeles, which will function side by side with the bank's agency at that centre, the bank would be in a position to extend all types of banking services and would be able to attract deposits in the growth-oriented State of California. It would act as a catalyst for promoting trade between India and the USA.

AS I SEE IT

How do we help Indians overseas?

THE condition of Indians abroad does not always make for pleasant reading. We seem to be suffering from a peculiar indecisiveness, whether we are at home or abroad. This indecisiveness only adds to suffering. There are about 26,000 Indian passport holders in Singapore and about 2000 persons of Indian origin who have not opted either for Indian citizenship or for Singapore citizenship and are thus classed as "stateless". It was the failure of these people to choose the nationality that gave rise to the problem of the "stateless" people. Their naturalisation as citizens either by Singapore or India is thus not easy, given the administrative system in the two countries.

Apparently the Central Government refers to a state government the application of a stateless Singapore Indian claiming origin in that state and only after clearance by the state government the Central Government decides to grant citizenship to such an Indian living abroad. Quite in keeping with the usual dilatoriness, the state governments take their own time to communicate their decision to the Central Government so that applications referred to the state governments as far back as 1973 had not been cleared by the state governments even after nine years, in 1982! When Indians whom the Government of India considers fit to be treated

as Indian citizens get such a treatment in India, how reasonable does it become to blame the administration in other countries for their dilatoriness?

In Burma also the problem of stateless Indians arose out of the failure of the Indians to obtain citizenship papers, when the Government of Burma had asked them for options. There were a number of factors—principally the functioning of the Burmese registration authorities, the inaccessibility of several regions of Burma as also the ignorance of the persons residing in the interior areas of Burma. Of the estimated four lakh persons of Indian origin now living in Burma only fifty thousand have acquired citizenship of Burma and another 50,000 have obtained registration as resident foreigners. In terms of Burmese citizenship law, which states that, a citizen of Burma is a person who is descended from ancestors who for two generations at least have made any territory included in Burma his permanent home and whose parents and who himself were born in any such territory. Unfortunately in the implementation of this legal provision the administrative machinery in Burma presents hurdles which are difficult to overcome even after the official representation by the Government of India on behalf of these unfortunate Indians, who know no

homes outside Burma but are yet not accepted as citizens. The plight of the Indians in Burma underlines the need for providing some basic political understanding to all Indians emigrating from this country.

The scope for action by the Government of India in aid of the Indians overseas is admittedly restricted especially when Indians themselves behave in a light-hearted manner. In Malaysia, for example, about 40,000 persons of Indian origin have chosen to remain in a "stateless" situation by not opting for the citizenship of that country—which they can obtain merely for the asking. The criticism arises only because the government is found not to be making full use of even this limited scope to help the Indians in other countries. Thus a typewriter, which the all Burma India Congress, Kyauktago branch in Burma wanted to have from the Government of India in 1975, was sent only in 1981. Money certainly was not the constraint. Indeed a typewriter was also purchased in 1977 but, in typically insouciant manner, was sent to others for whom it had not been meant! If our own government behaves with such a degree of callousness towards our own people in distress, how reasonable is it to expect other governments to be more understanding and sympathetic?

Subhash Chandra Sarker

SPECIAL REPORTS

Economy looks up in UP

By K. L. MUKERJEE

LUCKNOW

THE UP economy has shown signs of improvement during the past two years, after the severe setback it received due to drought in 1979-80. An analysis of broad indicators of core sector development shows that the performance of the State's economy has been relatively much better in 1980-81 and 1981-82. The economy, according to a study, has witnessed a growth rate of 4.9 per cent during the five year period ending 1978-79. Assuming the same economic structure, a growth rate of 5 per cent over the year 1980-81 has been envisaged for 1981-82.

In 1979-80, industrial production fell by 18 per cent as compared to that in 1978-79. The situation improved in 1980-81, when the production of sugar increased by 22.9 per cent to 12.12 lakh tonnes, cement by 14.6 per cent to 516,000 tonnes, cotton cloth by 9 per cent to 2,069 lakh metres over the production level of these commodities during 1979-80.

The index of industrial production during the first quarter of 1981-82 was 131.6 (base year 1970-71) which was 12.2 per cent higher than 117.3 per cent for the corresponding quarter of the previous year.

In the agriculture sector, an all-time record production of 249.46 lakh tonnes of food (against 164.39 lakh tonnes in 1979-80) was registered during 1980-81, showing an increase of 1.7 per cent. During 1981-82, the foodgrain production is estimated at 250 lakh tonnes. Sugarcane production was estimated at 707 lakh tonnes in 1981-82 against 642 lakh tonnes in 1980-81. Similarly, the production of oilseeds is expected to be 17 lakh tonnes in 1981-82 showing an increase of 1,00,000 tonnes over the level of 1980-81.

Power generation also increased in the state. As against 3,187 mw in 1978-79, the total installed capacity increased to 3,712 mw in 1980-81 and is expected to increase further to 3,925 mw in 1981-82. It is expected that generation would attain a level of 10,920 mw in 1981-82

against 10,190 mu in 1980-81 and 10,130 mu in 1978-79.

Touching a level of 99.19 lakh hectares in 1980-81, the irrigation potential is likely to further increase to 106.21 lakh hectares in 1981-82. Utilisation of irrigation potential created in these two years was 87.82 lakh hectares and 95.05 lakh hectares, respectively.

In pursuance of the perspective growth rate of 6 per cent per annum during the Sixth Plan 1980-85, the State planners have estimated an investment of the order of Rs 19,732 crores. For the 1982-83 Annual Plan an investment of Rs 3,936 crores at 1979-80 prices is needed, with an outlay of Rs 1,824 crores for the State's plan. Against this, the State Government has proposed an outlay of Rs 1,400 crores keeping in view the reduced outlay of Rs 6,200 crores for the Sixth Plan and the outlay of Rs 934 crores for 1980-81 and Rs 1,085 crores for 1981-82, approved by the Planning Commission. The Planning Commission has approved an outlay of Rs 1,202 crores

for 1982-83—11.7 per cent higher than the outlay for 1981-82.

There is little doubt that the reduction in the size of the proposed outlay will affect the tempo of development, for which a favourable climate had been created in the first two years of the Sixth Plan. The investment gap that has been created because of the slashing down of the State Plan outlay will have wide implications and affect the State income and per capita income.

However, the UP Government has decided that the growth rate of the economy should not be lowered and maintained at the 6 per cent level, as envisaged earlier. This is considered necessary to strengthen the State's economy further.

The continuing efforts of the State Government are essentially aimed at securing more Central sector investment, mobilising additional institutional finance, augmenting the credit-deposit ratio in the State, full utilisation of production potential. It would like to strike a balance between investment to be made in short and long gestation projects, so as to contain inflationary trends, besides the creation of infrastructural services like water supply, energy, transport and so on which are necessary both as items of consumption and inputs into production, and capital investment.

Gujarat: Accent on cash crops

AHMEDABAD

A STUDY conducted by the Centre for Monitoring Gujarat Economy, Gandhinagar, has observed that Gujarat has been able to break loose from the conventional style of subsistence agriculture and agro-based industrial structure catering mainly to consumers.

The study of the pace and direction of various productive sectors of Gujarat's economy since the formation of the State two decades ago shows that Gujarat's agriculture has become more oriented towards cash crops than towards subsistence crops. Similarly, the State's industrial base has now become more broad-based and balanced.

The State's agriculture and industrial structure has emerged highly modernised with significant changes in product-mix. Similarly, productivity, both in farms and factories, has increased significantly. As a result, Gujarat has become one of the country's most prosperous states with highest per capita income. It has also emerged one of the most urbanised and industrialised and literate states in the country.

The resource base of Gujarat and its utilisation in 1960, when the State was carved out of the erstwhile Bombay state, was low and very poor. Its economy was largely agriculture-based, and hence was subject to seasonal ups and downs, with no

SPECIAL REPORTS

major irrigation facilities. Except for its famed cotton textile mills, the State did not have any other industry worth the name. The picture has undergone a drastic metamorphosis.

The gross cropped area of Gujarat has increased only by 0.1 per cent per annum from 97.68 lakh hectares to 104.04 lakhs hectares in 17 years from 1960-61 to 1976-77, because the scope for increasing gross cropped area is limited except through reclamation of deserts saline and navine areas. As a matter of fact, the critical man-land ratio of Gujarat has sharply declined from 0.51 hectares in 1961 to 0.31 hectares in 1981—a decline of 40 per cent.

However, Gujarat's irrigated area as a percentage of gross cropped area increased significantly during the decades of sixties and seventies. In 1960-61, irrigated area of Gujarat was only 7.34 lakh hectares—7.5 per cent of gross cropped area. In 1976-77, the State irrigated about 17.75 lakhs hectares of land which works out to about 17 per cent of gross cropped area. Hence gross irrigated area has increased by 140 per cent in less than two decades, i.e., an annual compound growth rate of 6.3 per cent.

Gujarat now irrigates about 17 per cent of its cropped area, which is less than the national average of 28 per cent; but in view of its uneven terrain, limited suitable dam sites, and only two perennial inter-state rivers—Narmada and Mahi—the achievement of 17 per cent irrigation is not a mean one. In fact, Gujarat has by now developed 82 per cent of its ultimate irrigation potential based on minor schemes, which is comparable only with Haryana and Punjab. It has been able to exploit only 35 per cent of ultimate irrigation potential, which includes the State's inter-state rivers. Also the, the utilisation of potential already created through major and medium irrigation projects is only 55 per cent, which has been a matter of concern.

Similarly, chemical fertiliser consumption increased from a mere 1,000 tonnes in 1960-61 to 3,56,000 tonnes in 1980-81. This means the consumption of fertiliser in kg/hectare of gross crop area has gone up from a paltry 1.13 kg in 1960-61 to 37 kg hectare in 1980-81. During the 21 years, fertiliser consumption

has increased at the rate of 18.30 per cent per annum.

The spread of high yielding varieties in many crops has been spectacular. Today about 48 per cent of the area under cereals is covered by high yielding varieties of crops like bajra, jowar, maize, paddy, wheat, cotton and castor.

Also, consumption of electricity in agriculture increased from 196 lakh kwh in 1960-61 to 12,467 kwh in 1979-80. The farm sector used to consume only two per cent of the total electricity sold in Gujarat in 1960-61. Now agriculture consumes 17 per cent of total electricity sold in the State. The number of pump sets energised is more than 2.26 lakhs.

All these changes in the quality and quantity of agricultural inputs have led to the following developments:—

(1) The fluctuations in agricultural production have been reduced considerably. In sixties, the index of agricultural production has been below the average of the decade in five out of ten years. In seventies, such occurrences were only three out of ten years.

(2) There is a slight acceleration in agricultural output during this period. In sixties, agricultural production increased at the rate of one per cent per annum, but in

seventies the average annual growth was 2.2 per cent.

(3) The most spectacular achievement of agriculture in Gujarat is in the field of productivity. The index of agricultural productivity rose at the rate of 3.2 per cent per annum during the seventies as compared to a meagre 0.8 per cent annum during the sixties. Hence, the value added per hectare has increased from Rs 643 in 1960-61 to Rs 1,056 in 1976-77 at 1970-71 price level—an increase of 60 per cent.

Growth in agricultural output is equal to growth in the area under crops, plus growth in yields per hectare. Farm output in Gujarat rose at an annual compound growth rate of 1.0 per cent and 2.2 per cent in sixties and seventies respectively. The agricultural productivity increased at an annual compound growth rate of 0.8 per cent and 3.2 per cent and gross cropped area increased only at 0.2 per cent per annum sixties and minus 1.0 per cent per annum in seventies. Hence the major source of agricultural growth is the accelerated rate of growth of productivity.

The average annual growth rate of agricultural production between 1960-61 and 1980-81 is 2.8 per cent, which is higher than national annual average growth of 2.7 per cent.

Madhya Pradesh : Rs. 20 crores from minerals

BHOPAL

MADHYA Pradesh abounds in various minerals that are helping in the economic and industrial development of the state. In 1981, minerals to the tune of Rs 425 crores were mined in comparison to Rs 363 crores in 1980, thus showing an increase of Rs 62 crores.

The state, in comparison to other mineral producing states, was leading in production of diamond, diaspore, dolomite, limestone, pyrophilite and slate stone and ranked second in producing coal, bauxite, iron ore, celsite, corundum, red ochre

phosphorite, quartzite and moulding sand. In the production of manganese and sand the State was placed third.

There was a significant increase in the production of coal, limestone, iron ore, diamond, dolomite, fireclay and moulding sand in 1981 than in 1980.

The increased mineral production has earned higher revenue to the State exchequer. In last five years revenue has gone up from Rs 17.25 crores to Rs 28.04 crores in 1981-82 and is expected to go up further to Rs 33.70 crores in 1982-83.

CORPORATE SECTOR

In the market

Ahmedabad Advance

The Ahmedabad Advance Mills Ltd (Registered Office: Bombay House, 24 Homi Mody Street, Bombay 400 023) is offering for public subscription at par 70,250, 13.5 per cent secured convertible bonds of Rs 400 each totalling Rs 2.81 crores. Apart from this, 61,250 bonds of Rs 400 each at par totalling Rs 2.45 crores have been offered as 1:5 rights to the existing equity shareholders of the company, 11,000 bonds of Rs 400 each at par totalling Rs 44 lakhs have been reserved for preferential allotment to the equity and preference shareholders of the company and 7,500 bonds of Rs 400 each at par totalling Rs 30 lakhs have been reserved for preferential allotment to employees, directors and associates of the company. The subscription list will open on October 6 and will close on October 18 or earlier but not before October 12.

The company is a diversified unit having two divisions—textiles and metals. It is setting up a new plant at Sisodra near Navsari in Gujarat for manufacture of 80,000 tonnes of hot rolled stainless strips.

The cost of the development project is estimated at Rs 9.40 crores which will be financed by the issue of convertible bonds of Rs 6 crores, deferred payment arrangements of Rs 1.95 crores and internal resources of Rs 1.45 crores.

According to the chairman of the company Mr Naval H. Tata and the vice-chairman Dr Freddie A. Mehta, the convertible bonds issue has many attractive features. First, the bonds will carry additional interest of one per cent if for the immediately preceding financial year the equity dividend declared exceeds 19 per cent. The dividend for 1981-82 being 20 per cent, the bonds will carry interest at 14.5 per cent in the very first year itself. This would be one of the last debenture issues with the additional interest of one per cent. Second, the conversion premium to the subscriber is nearly half the current market price of Rs 245 per equity share (closing price on September 10 Rs 252.50). The convertible part of Rs 130 out

of the Rs 400 face value of each bond will entitle the subscriber to one equity share. Third, the future prospects of the company which has plans for diversification, technological upgradation and import substitution are very good. Finally, the bonds are expected to have enough liquidity through the arrangements made for listing both the convertible and non-convertible part of the bonds on the Bombay Stock Exchange.

Ahmedabad Advance Mills is known primarily as a textile mill but its metals division is making increasingly a greater contribution to turnover and profits. In 1981-82 the textile division's sales amounted to Rs 21 crores i.e., about 50 per cent to the total sales of Rs 41 crores. In fact, out of the present capital expenditure of Rs 9.40 crores, only rupees one crore will be spent for the textile division for its modernisation. The Sisodra plant for special alloy steels is expected to be commissioned by January 1983 and by March the plant will commence commercial production which will bring in additional turnover and profits.

Kirloskar Computer Services

Kirloskar Computer Services Ltd (Registered Office: 14, Chickbidarkal, Bangalore-Tumkur Road, Bangalore 560 073) will enter the capital market on September 15 with an issue of 3.50 lakh equity shares of Rs 10 each totalling Rs 35 lakhs. The issue will close on September 27 or earlier but not before September 18. The company is setting up a computer centre with ICL-2904 Computer system at Bangalore, to handle and carry on the business of hiring computer time, data managements and to carry on leasing activities.

Kap Chem

Kap Chem Ltd (Registered office: Whitefield Road, Mahadevapura Post, Bangalore 560 048) is offering for public subscription at par 3,88,500 equity shares of Rs 10 each totalling Rs 38.85 lakhs. The subscription list will open on September 15 and close on September 27 or earlier but not before September 18. The proceeds will partly finance the cost of a Rs 3.65-crore project for the manufacture of 4,500 tonnes per annum of acetic acid at

Belagola, district Mysore in Karnataka. Commercial production is expected to commence in October 1982.

The private promoters have brought in 100 per cent of their share of equity capital of Rs 40.00 lakhs out of which Rs 9.85 lakhs has been subscribed by non-resident Indians. Karnataka State Industrial Investment and Development Corporation Ltd has contributed Rs 11.00 lakhs towards equity capital. Substantial disbursement against and the term loans have been drawn and utilised in the implementation of the project.

Lohia Machines

Lohia Machines Ltd (Registered Office: C-3, Panki Industrial Estate, Kanpur 208 022, Uttar Pradesh) has offered for public subscription at par 2,82,500 13.5 per cent secured convertible debentures of Rs 200 each totalling Rs 5.65 crores. The issue opened on September 7 and will close on September 17. The company is setting up a plant for the manufacture of 2,200 tonnes per annum of nylon-6 chips at Kanpur.

Other developments

TIDCO

Tamilnadu Industrial Development Corporation Ltd has raised this week by way of 10,000 7.5 per cent 1997 debentures of Rs 1,000 each, a total of Rs 1 crore. The funds will be used to finance its activities in the State.

Forthcoming company meetings

SEPTEMBER 11 TO SEPTEMBER 17

IPCO PAPER MILLS LTD, Sunville Deluxe Pavilion, Dr Annie Besant Road, Worli, Bombay 400 018. (September 13, 2.30 p.m.)

SRI RAMAKRISHNA OXYGEN LTD, Karamadai Post, Coimbatore 641 104. (September 17, 10 a.m.)

W. G. FORGE & ALLIED INDUSTRIES LTD, Patkar Hall, S.N.D.T. Women's University, Smt Nathibai Thackersey Road, Bombay 400 020. (September 17, 11 a.m.)

CHEMBRA PEAK TEA ESTATES LTD, 273, Mysore Road, Bangalore 560 026. (September 17, 12.15 p.m.)



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Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rs lakhs)

Name of Company	Alembic Chemical Works Company		Cyanamid India		E Merck (India)		German Remedies		Searle (India)	
Industry Group	Fine & pharmaceutical Chemicals		Fine & pharmaceutical Chemicals		Fine & pharmaceutical Chemicals		Fine & pharmaceutical Chemicals		Fine & pharmaceutical Chemicals	
Item	Year ended December		Year ended November		Year ended December		Year ended December		Year ended December	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Assets (at the end of the year)										
Net worth (i+ii)	684.2	852.9	975.1	993.9	215.4	382.2	391.1	459.6	242.6	292.6
(i) Paid-up capital (a+b)	351.9	350.9	456.0	456.0	150.0	275.0	204.0	204.0	96.6	96.6
(a) Equity	344.9	344.9	456.0	456.0	150.0	275.0	204.0	204.0	96.6	96.6
(b) Preference	7.0	6.0	—	—	—	—	—	—	—	—
(ii) Reserves	332.3	502.0	519.1	537.9	65.4	107.2	187.1	255.6	146.0	196.0
Borrowings (i+ii)	1,041.9	1,029.2	178.1	393.5	235.0	283.0	652.1	634.0	117.0	259.9
(i) Long-term	281.7	248.7	22.6	20.0	59.6	38.5	—	—	10.0	37.0
(ii) Short-term	760.2	780.5	155.5	373.5	175.4	244.5	652.1	634.0	107.0	222.9
Non-current liabilities and provisions	—	—	7.2	5.0	—	—	2.0	13.1	—	—
Current liabilities and provisions	748.5	713.9	348.5	399.5	477.3	535.5	184.1	297.0	103.8	202.9
Assets (at the end of the year)										
Gross fixed assets	1,812.2	1,842.7	807.1	902.6	385.0	473.9	434.8	499.3	254.0	375.3
Less depreciation	1,045.4	1,124.6	289.7	334.6	112.3	132.3	175.7	204.7	102.1	117.5
Net fixed assets (5-6)	766.8	718.1	517.4	568.0	272.7	341.6	259.1	294.6	151.9	257.8
Current assets (i+ii+iii)	1,656.9	1,827.0	991.5	1,223.9	655.0	849.0	970.2	1,109.1	311.5	497.6
(i) Inventories	797.8	994.1	668.0	798.1	359.8	485.6	558.7	619.8	179.9	227.5
(ii) Receivables and loans and advances	776.4	769.3	272.7	377.4	272.0	260.4	368.4	443.1	88.1	223.0
(iii) Others	82.7	63.6	50.8	48.4	23.2	103.0	43.1	46.2	43.5	47.1
Other assets	50.9	50.9	—	—	—	10.1	—	—	—	—
Total: Liabilities (1 to 4) or Net assets (7 to 9)	2,474.6	2,596.0	1,508.9	1,791.9	927.7	1,200.7	1,229.3	1,403.7	463.4	755.4
Value of production and other income										
Sales/income net of excise duty, discounts and selling commission	2,893.9	3,467.9	1,547.2	2,122.3	1,384.5	1,623.0	1,814.0	2,135.3	644.3	921.7
Increase in stock of finished goods and work in progress	—10.1	220.3	—24.4	133.4	83.4	59.8	11.7	59.7	35.9	32.3
Value of production (10+11)	2,883.8	3,688.2	1,522.8	2,255.7	1,467.9	1,682.8	1,825.7	2,195.0	680.2	954.0
Other income	70.2	80.2	12.4	20.0	2.4	42.1	1.0	0.6	9.8	14.6
Expenditure										
Materials, stores and other mfg. expenses	2,137.4	2,547.2	941.9	1,494.9	909.7	998.8	1,054.6	1,238.4	286.1	433.9
Current repairs	19.1	21.0	14.5	18.8	16.2	21.4	34.7	39.8	23.4	34.9
Salaries and wages	323.2	383.8	253.5	334.2	199.1	253.9	235.6	270.6	130.8	148.8
Welfare expenses	28.3	32.2	25.1	33.9	29.7	35.9	26.0	41.9	8.1	10.7
Managerial remuneration	—	—	0.1	—	0.4	1.2	0.3	0.3	—	—
Other expenses	223.2	233.3	220.5	299.4	162.9	202.2	159.6	198.7	97.9	125.7
Depreciation	83.4	84.4	31.9	48.1	16.7	21.1	31.6	33.7	16.2	19.2
Other provisions	—	—	7.1	4.7	—	—	—	—	—	—
Operating profit (12+13)-(14 to 21)	139.4	466.5	40.6	41.7	135.6	190.4	284.3	372.2	127.5	195.4
Interest	215.4	212.9	9.0	46.0	62.6	57.2	90.9	98.6	16.1	46.5
Tax provision	—	33.0	21.8	—	46.0	77.0	125.2	175.2	52.0	77.0
Profit after tax (22-23-24)	—76.0	220.6	9.8	—4.3	27.0	56.2	68.2	98.4	59.4	71.9
Appropriations										
Dividends (i+ii)	—	52.9	45.6	—	22.1	25.4	28.6	28.6	21.3	22.2
(i) Equity	—	51.7	45.6	—	22.1	25.4	28.6	28.6	21.3	22.2
(ii) Preference	—	1.2	—	—	—	—	—	—	—	—
Profit retained (25-26)	—76.0	167.7	—35.8	—4.3	4.9	30.8	39.6	69.8	38.1	49.7
Total: Value of production and other income (12+13) or Expenses and appropriations (14 to 22)	2,954.0	3,768.4	1,535.2	2,275.7	1,470.3	1,724.9	1,826.7	2,195.6	690.0	968.6
Financial Indicators (per cent)										
Net worth/total net assets	27.6	32.9	64.6	55.5	23.2	31.8	31.8	32.7	52.4	38.7
Inventories/net sales	27.6	28.7	43.2	37.6	26.0	29.9	30.8	29.0	27.9	24.7
Operating profit/net sales	4.8	13.5	2.6	2.0	9.8	11.7	15.7	17.4	19.8	21.2
Operating profit/total net assets	5.6	18.0	2.7	2.3	14.6	15.9	23.1	26.5	27.5	25.9
Profit after tax/net worth	—	25.9	1.0	—	12.5	14.7	17.4	21.4	24.5	24.6
Equity earning/equity capital	—	63.6	2.1	—	18.0	20.0	33.4	48.2	61.5	74.4
Equity dividend	—	15.0	10.0	—	18.0	14.0	14.0	14.0	22.0	23.0
Equity dividend coverage. (No. of times)	—	4.2	0.2	—	1.0	1.4	2.4	3.4	2.8	3.2
Paid-up value per equity share (Rs.)	100.00	100.00	10.00	10.00	100.00	10.00	10.00	10.00	10.00	10.00
Market price of an equity share (Rs.)	70.00	86.07	34.00	27.43	—	20.32	25.50	37.71	41.00	40.07
Gross yield	—	17.4	2.9	—	—	6.9	5.5	3.7	5.4	5.7
Gross fixed assets formation	7.0	1.7	38.5	11.8	7.9	23.1	17.4	14.8	17.6	47.8
Debt/equity	0.41:1	0.29:1	0.02:1	0.02:1	0.28:1	0.10:1	—	—	0.04:1	0.13:1

Notes: .. Category not applicable ... Amount/Percentage is negligible — Amount is nil N. Q. Not quoted N. A. Not available

The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of various items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments have been made in other items also.



The Sandur Manganese & Iron Ores Limited

Registered Office : Lohadri Bhavan, Yeshwantnagar-583 124,
Via : Sandur (Bellary Dist.) Karnataka State



**Speech of the Chairman
Shri Y. R. GHORPADE
delivered at the
twenty-eighth
Annual General Meeting
held on 4th September 1982**

Ladies and Gentlemen,

I HAVE great pleasure in extending to you a warm welcome to the 28th Annual General Meeting of the Company.

The turnover of the Company went up to Rs 24 crores from Rs 17 crores last year, though the profit was Rs 146 lakhs after providing depreciation of Rs 119 lakhs, compared to a profit of Rs 225 lakhs, after providing depreciation of Rs 98 lakhs, during the previous year. It is proposed to declare a dividend of 15% on equity shares, as compared to 10% in 1979-80 and 12% in 1980-81. The main reason for the higher turnover was the increase in the sale of pig iron from about 28,000 tonnes during 1980-81 to 35,000 tonnes in 1981-82, the corresponding production of pig iron increasing from 29,000 tonnes to 40,500 tonnes. The sales of ferrosilicon also increased from nearly 8,000 tonnes in 1980-81 to about 13,000 tonnes in 1981-82, the production going up from 12,000 tonnes to 14,000 tonnes. However, our profits did not increase proportionately because of the

drastic increase in power rate, in total disregard of our long-term agreement with the Karnataka Electricity Board, and a sharp decline in the average sales realisation on ferrosilicon due to further weakening of demand for this product in the internal market and much lower prices in the export market. We have represented to the Government of India, through the Indian Ferro Alloy Producers' Association, that ferrosilicon also badly requires the support of export subsidies to enable indigenous producers to utilise available power for the production of this product without building up unbearable stocks or incurring heavy losses on the export of ferrosilicon. The Government is yet to take a decision in this matter.

With regard to manganese ore exports also, the situation worsened in spite of our repeated representation to the Minerals and Metals Trading Corporation of India Ltd. (MMTC) to appreciate the basic fact that if our Company is to maintain its present

labour force of about 3000 employees at our mines, we must be enabled to produce and export at least about 2 lakh tonnes per annum. Manganese ore is canalised through the MMTC, which was able to export only 50,000 tonnes of our ores during 1981-82, as against 86,000 tonnes last year, and an average of 2,70,000 tonnes during the years 1972 to 1974. However, the local sales of manganese ore during 1981-82 were 53,000 tonnes, including 38,500 tonnes to MMTC at Vizag at highly unremunerative prices. The world recessionary trends continued to affect the sales of manganese ore to the steel industry abroad, which is also now using less manganese ore per tonne of steel due to technological factors. During the seventies, the use of manganese went down from about 18 kgs. per tonne of steel to about 10 kgs. per tonne. Moreover, the South African mining interests have been able to make a serious dent into our established markets in Japan, by aggressive sales, utilising much larger ships of 50,000 tonnes and faster rate of loading to bring down the freight charges. Our ports are not yet equipped to handle such big ships for manganese ore. Moreover, the policy of the Government of India to progressively reduce the volume of manganese ore exports, in the name of conserving it on a long-term basis, generated a lackadaisical attitude even with regard to the export of low grade manganese ore like ours, which is sustaining so much employment in this area and earning valuable foreign exchange, and whose reserves in our mining concessions are estimated at 30 to 40 million tonnes.

When the Vijayanagar Steel Plant, near Sandur, becomes a reality, it will no doubt enable our Company to produce and sell more manganese ore locally, thereby improving the overall economics and viability of our mines. The foundation stone of the Vijayanagar Steel Plant was laid by the Prime

Minister, Smt. Indira Gandhi as early as 1971, at Tornagalli in recognition of its great potential and after expert evaluation. I am sure, the Government will take all possible steps to expedite the work of the Steel Plant and ensure early completion. However, our Company has to depend mainly on exports and face the South African competition in the Japanese market; and for this, the Company should be allowed greater initiative to conclude sales in Japan and the East European countries under the overall guidance of the MMTC, especially as our reserves of manganese ore are more than adequate to meet any future demand from the steel industry and, at the same time, to maximise exports. It is significant to note that the Japanese steel industry, in spite of the recessionary limitations, imports annually about 100,000 tonnes of 38-40% Mn ore, which used to be almost wholly supplied by our Company until 1974, but now South Africa supplies the bulk of this demand, and the exports of Sandur A grade (38-40% Mn) ores to Japan during the year 1981-82 were nil. Under the circumstances the Government of India should seriously consider abolishing the export duty of Rs. 12.50 per tonne on manganese ore, which is serving no purpose except to worsen our competitive position in the world market. The Government should also consider giving an export incentive for manganese ore and modernise the port facilities on a priority basis.

In spite of these grave difficulties, the Company has refrained from retrenching labour who have been depending on our mines for several decades for their livelihood. But this vital employment factor and human consideration should also be fully supported by the MMTC. As a result of the Company's employment and production oriented policy, in the hope of the MMTC and the Government liberalising their

restrictive export policies and quota system, our manganese ore stocks have built up to 3.36 lakh tonnes. However, during the year 1982-83 there are signs of improvement in exports to Japan and specially East European countries. Every effort will be made to ensure that the stocks of manganese ore do not increase further.

The production of electric pig iron has been the mainstay of our Company for the past few years. It may be recalled that we established a 15,000 KVA electric furnace in 1968 to produce about 40,000 tonnes of foundry grade pig iron per annum. The furnace has served the interests of the foundry industry in the country, especially specialised foundries which require quality pig iron, for nearly a decade and a half, and our low phosphorus pig iron made a name for itself in the home market for its quality and reliability. We were producing and selling about 2,500 to 3,000 tonnes of pig iron per month, even after we were forced to increase the price of pig iron in April 1981, in keeping with the increase in rates of power and other inputs. But suddenly in the month of April 1982, our monthly pig iron sales dropped to 500 tonnes from an average of nearly 3,000 tonnes per month in 1981-82, and have not yet picked up. This was mainly because of the import of cheap pig iron that was permitted under the new liberalised import policy. China and Pakistan dumped pig iron at unrealistically low prices, which should be a matter of concern for India. Both in the short-term and long-term interest of our country, we should not have allowed such imports which does positive harm to indigenous production and to the basic policy of maximising self-reliance and reducing the foreign exchange gap. The result is that our Company built up heavy stocks of pig iron amounting to about 8,000 tonnes, and consequently shut down the pig iron furnace

from 1st June '82. Our pig iron production capacity has been built up over the years by making sizeable investments from scarce capital resources. To suddenly render this capacity infructuous by permitting indiscriminate imports, without specifically taking into account indigenous production and capacity, is most unfortunate in a year which is being observed as the 'Year of Productivity.'

We are also unable to understand why the import duty on pig iron was reduced from 55% to 20%, after the imports were canalised through the Steel Authority of India Ltd. (SAIL) from September 1981. Before that, private parties were permitted to import pig iron under the OGL, though prior to April 1981 pig iron imports were totally banned. Moreover, from November '81 to March '82 there was no import duty at all. Even today, no distinction is made between low phosphorus (0.2% P max) and high phosphorus (0.4% P max), and therefore a lot of low phosphorus pig iron has come into the country. The IMF loan, which became necessary in the wake of oil price increases, is meant to strengthen the balance of payments position and not to displace indigenous production which is generating national income and employment. We have therefore represented to the Government of India that:

(i) Pig iron imports, especially low phosphorus pig iron should be totally banned;

(ii) the concessional import duty of 20% should be withdrawn and the previous import duty of 55% should be restored, or even increased in the interest of protecting indigenous industry from dumping; and

(iii) SAIL should purchase our pig iron stocks which are proven quality.

If production units like ours, which have a long record of service to the nation, are forced to close down for no fault

of ours and our production replaced by imports, it will only worsen the recessionary trends and considerably weaken the capacity and will of the nation to stand on its own legs and minimise dependence on foreign aid. We, however, welcome the decision of the Government to set up a high-level panel to review the imports of some sensitive commodities under the liberalised import policy. Pig iron production is extremely sensitive to imports, as already stated, and should be included as one of the items to be reviewed by the high-level panel expeditiously. The official thinking regarding the estimated gap between demand and supply of pig iron may also be reexamined, especially as SAIL is holding sizeable stocks of imported pig iron which are not moving. Overall concepts and strategies can prove counter-productive and even deepen recessionary trends if they are applied in a hasty and unimaginative manner, without taking into account the specific requirements of different industries. Shri L. K. Jha, Chairman of the Economic Administration Reforms Commission, has also recently stressed the need for an industry-wise approach, to ensure that well-meaning economic policies are so implemented that they strengthen indigenous industry and not weaken them.

The Company continued to pay attention to the various welfare measures which have, over the years, strengthened the standard and quality of life of our employees and maintained a human relationship of faith and confidence between management and labour. The subsidy scheme, by which the Company supplies to the employees essential commodities such as rice, jowar, turdhal, gramdhal, jagery, sweet oil and chillies, at prices prevailing in March 1972, has cost the Company Rs. 55 lakhs during the year as compared to Rs. 31 lakhs in the previous year and Rs

10 lakhs in 1976-77. This is not only a measure of the rate of inflation as it affects labour, but also a practical strategy to protect the real wages of employees from the ravages of inflation, and is capable of wider application on a nation wide basis.

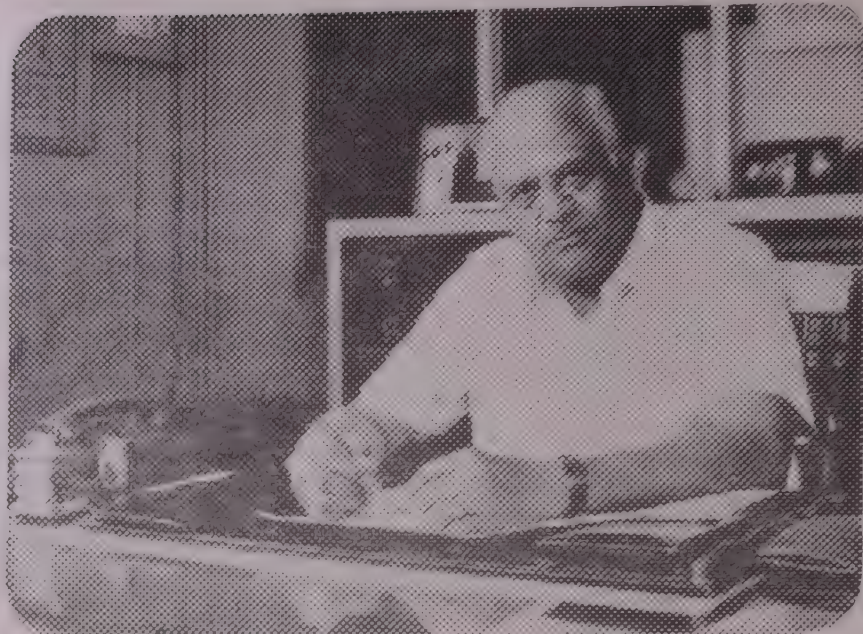
The Company strengthened the nutrition programme by providing nutritious food to children in our balwadies and schools, apart from various other welfare activities in the fields of health, education and extension services. Under its programme for providing training for skills and productive employment to supplement the family income of the employees, the Company introduced the Sewing Machine Scheme, by which an employee is enabled to buy a sewing machine, with loans from banks and the Company to the extent of 75% and 25% of the cost respectively; the Company's loan being interest free, and the interest on bank loan in excess of 4% p.a. being subsidised by the Company. This scheme has evoked a great deal of interest and enthusiasm especially among womenfolk. The housing programme both at the Mines and Metal and Ferro Alloys Plant is also making satisfactory progress.

The Company enjoys the unique record of not having had a single strike during the 28 years of its existence and, I am sure, the same spirit of harmony and understanding will be maintained in the years to come. I wish to express my deep appreciation of the good work put in by all the employees of the Company. I am grateful to all my colleagues on the Board and the Financial Institutions for their valuable guidance and support.

Thank you,
Yeshwantnagar,
4th September 1982

Y. R. GHORPADE

NOTE: This does not purport to be the proceedings of the Annual General Meeting.



The following is the Text of the Speech delivered by Cavalier G. K. Devarajulu at the 72nd Annual General Meeting of the Company on 1st September 1982.

Ladies and Gentlemen,

It gives me great pleasure to welcome you all to this Seventy Second Annual General Meeting of your Company. The Annual Report containing the financial results and the Directors' Report for the year ended March 31, 1982 has already been forwarded to you. With your permission I shall take them as read.

The year 1981-82 under review, has been a less fortunate one in general. The performance of a Company is always influenced by the general economic conditions and Government's fiscal policies and your company is not an exception.

GENERAL ECONOMIC SCENE:

The performance of the Industrial Sector in India over the past eight months, does not hold out a promise for the planned growth of our industries. There has been an all-round slackening of industrial production in this "Year of Productivity."

The declining off-take of the finished products of a number of industries over a long period is a clear proof of the recession, a recession of demand. The stocks of cotton textiles mounted from 293 million metres in February 1981 to 374 million metres in February 1982. Similar is the situation faced by the other major industries like paper, jute, light engineering, petro-chemicals, automobile, synthetic fibre, tyre, sugar etc. The malady is not confined to the private corporate sector only. It has also pervaded the public sector units as well.

One important factor responsible for the demand recession is the credit squeeze imposed by the Reserve Bank of India. This step is supposed to fight inflation, but the recession is worse than inflation. We should realise that we are under compulsion to accelerate the developmental efforts at least to prevent under-employment and unemployment due to the recession. However, the credit restrictions have now been relaxed to some extent, but the banks have increased the rate of interest and what little service was there has also disappeared.

INDUSTRIAL SICKNESS:

According to the available data, the number of sick units have increased by 1300 during the year 1980 alone. Sickness was found to be acute in textiles, sugar and jute industries which account for more than 40 per cent of the total industries.

All the sick units together have blocked Rs. 1800 crores of Bank finance and they, small, big or giant, take away a fair portion of the scarce resources. Therefore they are a dead load on the healthy units.

The Textile Industry has been passing through a crisis since the middle of 1981. The Industry estimates that it is losing at the rate of Rs. 70 lakhs per day in Bombay alone on account of the prolonged strike in 54 mills. It is feared that, at the end of the strike, at least 20 of these mills will become sick. It is very urgent that steps must be taken to prevent units from falling sick and also to bring all the sick units back to health.

MODERNISATION:

The Textile Industry needs urgent modernisation and renovation. It has been estimated that Rs. 2125 crores is necessary for renovation immediately and Rs. 300 crores for every subsequent year. The Industrial Development Bank of India has a scheme of Soft Loan started in 1977. Till the end of 1981 it has distributed only Rs. 230 crores. It has not produced much results for one reason or the other.

The Indian Cotton Mills' Federation, in a memorandum submitted to the Government, has suggested, among other things, creation of a "Modernisation Fund" by the Mills through transfer of 30 per cent of the profits before depreciation and tax, tax rebate, investment allowance and refund of excise duty collected. The suggestions merit serious consideration by the Government.

Besides modernising the mills will have to cope up with the technological developments which are taking place very fast. Even the revolutionary Rotor Spinning which was new two years ago, is no longer modern. Now, Japanese have succeeded in producing a jet-spinning machine which is three times faster than rotor spinning. It is up to the mills to decide the level of modernisation taking into consideration all the relevant factors.

EARNINGS RETAINED:

The general public often protest to pay the high prices for yarn and cloth in this country and they are under the impression that the Textile Mills are making huge profits, but the fact is that the amount actually retained by the Mills is only a fraction of the total collection and this is generally overlooked. In the case of your Company, you would have observed that out of Rs. 5666 lakhs collected, the amount retained by the Mills is just Rs. 198 lakhs (3.5 per cent) which includes Rs. 133 lakhs as Depreciation and Rs. 18 lakhs as Investment Allowance. A Major sum of Rs. 3192 lakhs i.e. 56.3 per cent goes to raw

materials while Rs. 567 lakhs has been paid as Taxes and duties which is 10.1 per cent. The amount paid to employees is Rs. 749 lakhs i.e. 13.2 per cent and the balance of Rs. 960 lakhs i.e. 16.9 per cent represents the operational expenses. Thus, the amount retained is so meagre that it does not serve any meaningful purpose with the replacement costs going up by 10 to 15 per cent annually. The Industry's plea, therefore, that it should be permitted to retain a little more by way of allowable deductions on taxes and duties and creation of funds is but understandable.

MOUNTING STOCKS AND SCANTY RESOURCES:

Accumulation of stocks consequent to the fall in demand, both at home and abroad, is the problem of the day. When yarn prices are reduced to induce buying, the market panics and the demand falls. The stocks pile up blocking huge funds and the interest on this adds up to the cost. As an alternative, if the production is curtailed to reduce stocks, the mill has to meet the overheads and pay compensation to the workers and here again, the mill loses. Under the present conditions, the borrowing limits have been exceeded and all the alternative sources have dried up. Thus, the mills are compelled to make distress sales at a price much below the cost. This situation has completely demoralised the mills.

LOW PROFITABILITY BASE:

Textile Industry has been working on a low profit base in our country compared to other industries for many years. On this account, this Industry has lost its place as a favoured one by the investors. You may observe from the accounts that the production and sales performance of your Company during the year under review have improved. On the other hand, the gross profit has reduced to Rs. 271 lakhs as compared to Rs. 644 lakhs last year.

RAW MATERIAL — A SHIFT IN PATTERN OF CONSUMPTION

Cotton is still the prime fibre today in this country. Synthetic fibre accounts for 17 per cent of the total consumption now, as against 10 per cent a few years ago. Whereas the international situation is different. The use of synthetic fibres has reduced from 70 per cent to 50 per cent at present. Even cost-wise, synthetic fibre, in particular polyester fibre, is cheaper than cotton in the International markets. The shift in the pattern of consumption from pure cotton to blends is also one of the reasons for the present demand recessions. In India, the synthetics have borne the brunt of duty levies at every stage, fibre, yarn and cloth, since they are considered luxury items. The polyester fibre with 110 per cent duty is ten

is costlier than cotton and six times costlier than international polyester fibre.

In spite of the high cost, there is a definite consumer preference in favour of blended fabrics and not for pure cottons. The share of blended fabrics at present is 16 per cent of the total consumption.

As far as cotton is concerned, there has been a steep fall in the consumption due to the strike in Maharashtra and power-cuts in several States. There is a marked fall in the quality of the new crop. Despite the situation, the prices are ruling fairly at a fairly higher level. The present poor monsoon will have an adverse effect on both the availability and quality of the cotton in the coming season.

MAN DAYS LOST

During this year, there have been prolonged strikes in several mills in Kerala and Maharashtra for short periods in almost all the States. During the calendar year 500 lakhs man-days have already been lost as compared to 250 lakhs during the whole of last year. In spite of the best efforts, the achievement of projected targets as far as production is concerned is likely to fall far short during this year, "the Year of Productivity."

EXPORTS

The country's exports of all commodities for the year 1981-82 increased by 9 per cent over the last year's performance. Whereas the export of traditional items like Tea, Coffee, Jute Cotton Textiles etc. had declined. The cotton textiles including garments fell by 4 per cent while the man-made textiles declined by 12 per cent.

As far as our own performance is concerned, we have exported 45 per cent of our cloth production. The total value of exports amounts to Rs. 334 lakhs as compared to Rs. 257 lakhs last year.

POWER SHORTAGE:

There has been severe power shortage in almost all States except Kerala and the worst-hit was Rajasthan where there was 100 per cent power cut for industrial production. In the south, Tamil Nadu is the only state facing a shortage even now and the elusive monsoon may force an earlier imposition of power cut. With most of the reservoirs much below the normal level, the state has to fall back on thermal generation and bought out energy from neighbouring states like Kerala, which will cost us more.

WORKING AND PROSPECTS

In the light of the general socio-economic conditions, the performance of your Company should be considered as satisfactory with the turnover increasing from Rs. 4749 lakhs (last year) to Rs. 5045 lakhs. An amount of Rs. 24 lakhs has been transferred to the general reserve. The amount in the development rebate and investment allowance reserves is Rs. 181 lakhs. We have added fixed assets of the value of Rs. 251 lakhs this year. I expect that under the prevailing conditions, the year 1982-83 may turn out to be an year of moderate prospects.

I am indeed happy at the excellent co-operation and the good team work exhibited by the workers, staff and officers of the Company. I am also thankful to my colleagues on the Board for their valuable advice and guidance in carrying out the affairs of the Company.

May Goddess Lakshmi shower Her blessings on all of us for the continued prosperity of the Company.

Thank you.

Note: This does not purport to be a record of the proceedings of the Annual General Meeting.

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DALMIA CEMENT (BHARAT) LIMITED

Regd. Office : Dalmiapuram, Dist. Tiruchirapalli, Tamilnadu

NOTICE

It is hereby notified for the information of the public that DALMIA CEMENT (BHARAT) LIMITED proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a Notice under sub-section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities. Brief particulars of the proposal are as under :—

- i) *Name(s) of the person(s)/body corporate owning the undertaking :—*
DALMIA CEMENT (BHARAT) LIMITED
- ii) *Capital structure of the applicant undertaking :*
- | | |
|---|------------------------|
| a) AUTHORISED CAPITAL : | |
| 60,00,000 shares of Rs. 10 each | Rs. 6,00,00,000 |
| b) ISSUED & SUBSCRIBED CAPITAL : | |
| 3,11,870 Cumulative Preference Shares of Rs. 10 each fully paid up | Rs. 31,18,700 |
| 1,91,985 - 11% Cumulative Redeemable Preference Shares of Rs. 10 each - fully paid up | Rs. 19,19,850 |
| 28,69,358 Ordinary shares of Rs. 10 each - fully paid up | Rs. 2,86,93,580 |
| | Rs. 3,37,32,130 |
- iii) *Details of the proposed substantial expansion :*
- | | |
|---|---|
| a) Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered : | Vertical Shaft Kiln Plants with accessories are proposed to be manufactured. |
| b) In the case of substantial expansion of existing activities : | |
| i) Name of goods | Not applicable as the proposed substantial expansion is for manufacture of a new article. |
| ii) Capacity before expansion | |
| iii) Expansion proposed | |
| iv) Location of the project for substantial expansion | |
| v) Brief outline of the cost of the project, the scheme and sources of finance. | |

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

For DALMIA CEMENT (BHARAT) LIMITED,
B.L. Chatterjee
SECRETARY

Dated : 23rd August, 1982.

ZENITH STEEL PIPES AND INDUSTRIES LIMITED
(Division : Zenith Cement)

Regd. Office : Moti Mahal, 195, Churchgate Reclamation, Bombay 400 020

NOTICE

It is hereby notified for the information of the public that Zenith Steel Pipes and Industries Limited proposes to make an application to the Central Government in the Department of Company Affairs New Delhi, under sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for the production of Portland Cement with an installed capacity of 10 Lakh Tonnes per annum for the estimated sales value of Rs. 47.50 crores per annum. Other particulars of the proposed new undertaking are as under :—

- (i) *Name of the proposed undertaking* The proposed undertaking shall be a division of ZENITH STEEL PIPES AND INDUSTRIES LIMITED, in the name of ZENITH CEMENT (Proprietor, ZENITH STEEL PIPES AND INDUSTRIES LIMITED).
- (ii) *Name(s) of person(s) or authority/authorities proposing to establish the new undertaking where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking* Zenith Steel Pipes and Industries Ltd. will be the proprietor of the proposed new undertaking. Zenith Steel Pipes and Industries Ltd. is managed by Board of Directors whose names are given below :—
1. Shri Ashok Vardhan Birla (Chairman)
 2. Shri Bansi S. Mehta
 3. Shri Jagdish K. Munshi
 4. Prof. M. P. Gandhi
 5. Shri Rahulkumar Bajaj
 6. Shri Arun D. Dahanukar
 7. Shri K. N. Memani
 8. Shri A. K. Dasgupta
- (iii) *Capital structure of the applicant person or authority and of the proposed undertaking.* The Authorised Capital of the applicant Company is Rs. 5 crores comprising of 40 Lacs Equity Shares of Rs.10/- each and 10 Lacs unclassified shares of Rs. 10/- each. The issued and subscribed capital of the applicant Company is Rs.3.15 crores comprising of 31.50 Lacs Equity Shares of Rs. 10/- each.
- (iv) *Proposed location of the new undertaking.* Tehsil & Dist. ADILABAD, ANDHRA PRADESH
- (v) *Brief outline of the cost of project, the scheme and source of finance* Estimated cost of the project will be Rs. 9000 Lacs at current prices. It is proposed to finance the project as follows :—

	(Rs in lacs)
(a) Our own resources	2250.00
(b) Long term borrowings from Financial Institutions/banks	6750.00
Total	9000.00

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

for ZENITH STEEL PIPES & INDUSTRIES LTD.

Bombay :
Dated this 1st day of September, 1982J.P. KHEMKA
Secretary

(Compiled by
Commerce Research Bureau)

e cash section, Bajaj Auto, Bayer, tan Ferodo, India Photo and attracted modest buying support. abad Advance, Atlas Copco, Forge, Bharat Gears, Colour-Dempo Steam, Ferro Alloys, Steel, Hindustan Dorr, Kelvina-Mahindra Uguine were among the ips.

German Remedies (10)	37.50	37.75	37.00	37.75
Gokak (10)	15.75	15.75	15.25	15.75
Great E. Shipping (10)	14.25	14.50	14.00	14.50
Gujarat Alkali (10)	42.00	42.00	41.00	42.00
Guj. Narmada (10)	11.25	12.25	11.25	12.25
Gujarat Steel Tubes (100)	285.00	285.00	270.00	270.00
Herdillia Chem. (10)	21.50	22.00	21.00	22.00
Hind Brown (100)	280.00	277.50	270.00	277.50
Hind Ferodo (10)	39.00	42.00	38.50	42.00
Hindustan Sugar (100)	215.00	215.00	215.00	215.00
Hindustan Spg. (250)	182.50	182.50	182.50	182.50
Hoechst Dyes (10)	24.00	24.00	23.50	24.00
IDL, Chemicals (10)	15.00	15.50	15.00	15.50
Indian Explosive (10)	19.25	19.25	18.25	18.25
Indian Hotels (10)	61.00	61.00	59.00	59.00
Industrial Cable (10)	30.00*	—	—	30.00*
Ingersoll Rand (10)	163.50	165.00	162.00	162.00
J. K. Cotton (10)	13.50	—	—	12.50
Jayant Paper (100)	140.00	142.00	140.00	140.00
Jyoti (10)	21.75	21.50	20.50	21.00
Kamani Eng. (10)	65.00	65.50	65.00	65.00
Khand, Ferro (100)	125.00*	125.00	117.50	122.50
Khatau (100)	200.00	205.00	200.00	200.00
Kirloskar Cummins (100)	581.25	580.00	573.75	573.75
Kirloskar Oil (10)	20.75	20.50	19.50	20.25
Kohinoor Mills (100)	52.00	55.00	52.00	52.00
Laxmi Vishnu (100)	45.00*	—	—	45.00*
Madura Coats (10)	17.50	17.50	17.00	17.50
Mafatlal Eng. (100)	95.00	95.00	90.00	93.00
Mafatlal Ind. (125)	313.75	312.50	310.00	312.50
Mafatlal Fine (100)	165.00	165.00	161.25	162.50
Maharashtra Sugar (50)	36.00	—	—	36.00*
Mahindra UGINE (10)	41.50	41.00	38.50	38.50
Morarjee (100)	185.00*	—	—	185.00*
Mysore Cement (10)	38.00	39.00	37.00	38.00
National Rayon (100)	320.00	335.00	325.00	327.50
New Gr. Eastern (100)	70.00*	—	—	70.00*
New Stand. Eng. (100)	110.00	110.00 ^d	90.00 ^{xd}	95.00 ^c
Otis Elevator (10)	30.00	31.50	29.00	31.50
Pfizer (10)	23.00	23.25	22.50	23.25
Phaltan Sugar (50)	26.00*	—	—	26.00*
Podar Mills (10)	5.50*	—	—	5.50*
Polychem (50)	49.00	50.00	48.00	50.00
Polyolefins Ind. (100)	270.00	—	—	270.00*
Premier Const. (80)	92.00	94.00	91.00 ^U	91.00
Raghunathi (100)	122.50*	—	—	122.50*
Rallis India (100)	185.00	—	—	185.00*
Raymond Wool (10)	36.00*	37.00	36.00	37.00
Rohit Pulp (100)	150.00*	—	—	150.00*
Sandoz (10)	26.75	26.75	26.00	26.50
Sandvik Asia (100)	327.50	321.25	312.50	321.25
Saurashtra Cement (100)	132.50*	—	—	132.50*
Shri Dig. Cement (100)	280.00	295.00	270.00	275.00
Shree Niwas (100)	75.00*	—	—	75.00*
Shree Ram (100)	55.00*	65.00	65.00	65.00
Simplex (50)	60.00	60.00	59.00	59.50
SLM-Maneklal (100)	172.50	172.50	150.00	152.50
Special Steels (100)	81.00*	81.00	81.00	81.00
Stretch Fibres (10)	9.00*	9.00	8.50	8.50
Surat Electric (100)	104.00*	—	—	104.00*
Swadeshi Polytex (10)	14.25	—	—	14.25*
Swan Mills (100)	135.00	130.00	125.00	125.00
Synthe & Chem (100)	51.00	51.00	76.00	76.00
Tata Hydro (100)	92.00	98.00	92.00	98.00
Tata Mills (25)	18.00	18.00	18.00	18.00
Tata Power (100)	108.00	105.50	103.00	103.00
Tata Yodogawa (100)	132.50*	132.50	130.00	130.00
Tata Finlay (10)	11.75	12.75	11.50	12.50
Texmaco (10)	43.50*	—	—	43.50*
United Carbon (100)	180.00	180.00	155.00	155.00
Vulcan Laval (10)	30.50	30.50	29.00	29.00
Walchand Nagar (10)	27.00	—	—	27.00*
Warner Hind. (10)	23.00	22		

Notes: (a) Figures within brackets indicate the paid-up value of shares and Ex-dividend and Cum-dividend prices of the last official trading and not of the date indicated in the columns. (b) The dash (—) in the columns of 'High' and 'Low' mean that no official trading in the share had taken place during the period under report.

GOETZE (INDIA) LIMITED

NOTICE

Pursuant to Press Note dated 29th July, 1982 issued by the Ministry of Industry, Department of Industrial Development, Government of India, read with its Press Note dated 28th August, 1982 and as required under Rule 4A of the Monopolies and Restrictive Trade Practices Rules, it is hereby notified for the information of the public that Goetze (India) Limited has applied to the Government of India for re-endorsement of its licensed capacity for manufacture of Piston Rings at Bahadurgarh, Patiala in the State of Punjab, based on best production achieved during the last five years plus 1/3rd thereof. Brief particulars of the proposal are as under:

- I. Name (s) of the person (s), body corporate owning the Undertaking: **GOETZE (INDIA) LIMITED**
- II. Capital structure of the applicant Undertaking :
- | | | |
|-----------------------------|---|------------|
| Authorised capital | : | (Rs. lacs) |
| Issued & Subscribed Capital | : | 1000 00 |
| Paid-up capital | : | 462.24 |
| | : | 462.17 |
- III. Details of the proposal :
- (a) Name of goods : Piston Rings.
- (b) Licensed Capacity : 1,20,00,000 numbers per annum.
- (c) Re-endorsement on the basis of best production : 1,82,14,388 nos. per annum.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, Dr. Rajendra Prasad Road, New Delhi-110001 under advice to the Company, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

for and on behalf of
GOETZE (INDIA) LIMITED

Registered Office:
H-2 Connaught Circus,
New Delhi 110 001.

ANIL NANDA
Joint Managing Director

Dated, this 1st day of September, 1982.

DHRANGADHRA CHEMICAL WORKS LIMITED NOTICE

It is hereby notified for the information of the public that Dhrangadhra Chemical Works Limited proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under Sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for the production, supply, distribution or control of 4.00 M. Tons of Magnesium Chloride (46%). Other particulars of the proposed undertaking are as under :

- (i) Name of the proposed undertaking :
- (ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking where it is a body corporate furnish details of its management structure together with those of proposed undertaking.

DHRANGADHRA CHEMICAL WORKS LIMITED.
Dhrangadhra Chemical Works Limited which is managed by Managing Directors under the supervision and control of the Board of Directors, named Sahu Shriyans Prasad Jain (Chairman)
Shri HHM Sriraj Dhrangadhra
Shri A.K. Roy
Shri Gopaldas P. Parikh
Shri Dharma Vira
Shri Radhakrishna R. Ruia
Shri F. H. Tapia
Shri K.M. Philip
Shri Prem Chand Jain
Dr. G.P. Kane
Shri Gian Chand Jain
Shri Shashi Chand Jain (Managing Director)
The new undertaking will be managed by the management stated above.

- (iii) Capital structure of the applicant person or authority and of the proposed undertaking

SHARE CAPITAL :

Authorised Capital:

1,00,000 Preference Shares of Rs.100/- each	Rs. 1,00,00,000
2,50,000 Equity Shares of Rs. 100/- each	Rs. 2,50,00,000
	Rs.3,50,00,000

Issued, subscribed and paid-up Capital :

2,591—11% (subject to tax at source)	
Cumulative Redeemable Preference Shares of Rs. 100/- each fully paid up.	....
25,000—9.5% (subject to tax at source)	
Cumulative Redeemable Second Preference Shares of Rs. 100/- each fully paid up	Rs. 25,00,000
35,000—9.5% (Subject to tax at source)	
Cumulative Redeemable Third Preference Shares of Rs. 100/- each fully paid up	Rs. 35,00,000 60,00,000
2,34,774 Equity Shares of Rs. 100/- each fully paid	Rs. 2,34,77,400
Add: Forfeited Shares	Rs. 200 2,34,77,600
	2,94,77,600

140—7.8% Cumulative Redeemable Preference Shares of Rs. 100/- each not surrendered by Shareholders for redemption

14,000

Rs. 2,94,91,600

- (iv) Proposed location of the new undertaking
- (v) Brief outline of the cost of project, the scheme and source of finance

Kuda, Surendranagar Dist.
Estimated cost of the project : Rs. 12.00 lakhs.
The Project is intended to be financed from our own resources.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi within 14 days from the date of publication of this notice intimating his views on the proposal and indicating the nature of his interest therein.

For **DHRANGADHRA CHEMICAL WORKS LTD.**
SHASHI CHAND JAIN
Managing Director

Dated this 2nd day of September 1982
Registered Office:
Dhrangadhra 363 315
Gujarat State.

Market Gossip

Change in port policy?

ALL the construction of the new port of Nhava Sheva herald also a change in the port management policy of the government? Our major ports are presently run by port trusts who not only administer the port but manage all the equipment and operate all equipment. But there is constant criticism from the shipping lines as well as shippers that the management by the port trusts is not up to the mark and the result is slow turn-around of vessels with consequent losses to shipping companies because of the time spent at berths. There are also many complaints that the equipment at most of the ports is obsolete and because of that loading and unloading operations are very slow. What is the way out? One suggestion made by the chairman of All India Shippers' Council, Mr. P. Chowgule, was that port trusts should provide the infrastructure and transportation facilities and construct the berths but lease them out to shipping companies or even to shippers who are willing to operate them. The shipping companies could install their own modern equipment for loading or unloading of cargo and provide the warehousing facilities so that the port trusts will not be responsible for delay in turn-round of ships. He has pointed out on a number of occasions that this experiment has been tried most successfully in West Europe, United States and Japan.

The Government of India now seems to be averse to this suggestion. The secretary to the Shipping Ministry, Mr. P. S. Singh, told the recent annual meeting of the All India Shippers' Council that the government was prepared to offer a berth at any port for the national shipping lines provided they operate their own equipment in those places efficiently. He said that the government did offer a berth at Nhava Sheva to the Shipping Corporation of India but the offer was

not accepted. In fact, he regretted that the offer was yet to be accepted by any shipping line in the country. If, between now and the completion of the Nhava Sheva port, three or four years ahead, the Shipping Corporation does feel inclined to take over the operation of the berth, it will be an innovation and mark a departure in the policy of administration of the port by the Central Government.

No return on sugar exports

SUGAR exports have rarely brought us returns though they become necessary when there is a production surplus. Over the past decade, except during 1974-75 when we realised in the export markets a price higher than the domestic market, in all other years the export prices have been anything from 30 to 60 per cent lower than the domestic price. This year, too, the story will be repeated and repeated in acute form. Under the International Sugar Agreement the raw sugar export quota fixed for the current year for us is 700,000 tonnes which is equivalent to 6.4 lakh tonnes of refined sugar. Till the end of July we had already exported 2,49,000 tonnes of sugar and the industry is confident of fulfilling the entire quota. Right from the beginning of this year the international sugar market has been weak and in the earlier part of the year London quotation was around to £125 a tonne. But last week the level struck 4-year low at £89 per tonne. One sugar analyst commented that there is little about the current information production and stocks to suggest that prices would stabilise above the £81 per tonne (about Rs. 1600 per 1000 kg) point reached in mid-summer 1978 and an 8-year low. In his opinion the sugar market was bad and getting worse. Which all means that our returns on sugar exports would be most poor.

Cotton association amends by-laws

THE East India Cotton Association Ltd has amended certain of its by-laws. The amendments were intended to bring in line the by-laws regarding burst bales, weight of bales and deliveries with the prevailing practice in upcountry cotton markets so as to secure uniformity, to delete certain by-laws which have become redundant as in the case of spot dealings and deliveries of African and Pakistan cottons, or of the applicability of certain by-laws to crops of certain previous seasons prior to 1967 when the futures market was functioning, to make provisions regarding substitution of varieties in contracts by mutual agreements under certain conditions, to authorise by-law 34A Committee to fix value differences in the case of variations in mechanical tests like micronaire, and to change the official year for accounting purposes and to cover other consequential changes.

The schedule of standard descriptions of cotton has also been amended to bring it in line with the changes which have come about in respect of grades and staples of some of the varieties during the last two/three years and in respect of areas of their growths.

Narmada Cement in operation

TRIAL production at the 3,000 tonnes per day clinker unit at Jafrabad of Narmada Cement Company began last week and clinker from Jafrabad is planned to be sent to Magdalla in Gujarat and Ratnagiri in Maharashtra for grinding where the cement company has established such units. The kiln was lighted on Ganesh Chaturthi day on August 22. The Magdalla grinding unit has a capacity of 2,000 tonnes a day and the Ratnagiri unit 1,000 tonnes a day. During the first year of operation the company expects a capacity utilisation of 75 per cent. The plant is based on a new technology.

NOTICE

It is hereby notified for the information of the Public that Shriram Fertilisers & Chemicals, a Unit of The Delhi Cloth & General Mills Co. Ltd., proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi under sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969 for the establishment of a new manufacturing activity for the production, supply, distribution or control of Acetylene Black with an installed capacity of 3,000 tons per annum, and estimated turnover of Rs. 11 crores. Other particulars of the proposed undertaking are as under :—

1. Name of the proposed undertaking The proposed manufacturing activity will be undertaken by Shriram Fertilisers & Chemicals, a unit of The Delhi Cloth & General Mills Co. Ltd.
2. Name of persons or authority/authorities proposing to establish the new undertaking where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking. Shriram Fertilisers & Chemicals, a unit of The Delhi Cloth & General Mills Co. Ltd., which is managed by Managing Directors.
3. Capital structure of the applicant/persons of authority and of the proposed undertaking. The capital structure of The Delhi Cloth & General Mills Co. Ltd., as on 30th June, 1981

Authorised	Rs.	50,00,00,000
Issued & Subscribed		
—Preference	Rs.	1,67,23,550
—Equity	Rs.	19,67,32,363
Total	Rs.	21,34,55,913
4. Proposed location of the undertaking. Tehsil : Ladpura
District : Kota
State : Rajasthan
5. Brief outline of the cost of the project, the scheme and source of finance. The estimated cost of the project is Rs. 5.25 crores. Financing pattern will be finalised in consultation with Financial Institutions.

Any person interested in the matter may make a representation to the Secretary, Deptt. of Company Affairs, Government of India, Shastri Bhawan, New Delhi within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of his interest therein.

Sd/-

(S. RATNAM)

EXECUTIVE DIRECTOR

THE DELHI CLOTH & GENERAL MILLS CO. LTD.

REGD. OFFICE : BARA HINDU RAO, DELHI

NOTICE**ESCORTS LIMITED**

It is hereby notified for the information of the public that ESCORTS LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi under sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for assembly, fabrication, testing and repairing over-hauling of Diesel Generating Sets, Marine propulsion gear units, Diesel Engines and Alternators and their accessories with an estimated annual turnover of Rs. 10.00 crores. Other particulars of the proposed new undertaking are as under :—

- (i) Name of the proposed undertaking Escorts Limited—Agency Sales Division.
- (ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking. ESCORTS LIMITED
- (a) Management structure of the applicant undertaking. Escorts Limited is managed by the Managing Director and Joint Managing Directors under the superintendence, control and direction of the Board of Directors.
- (b) Management structure of the proposed undertaking. Same as the applicant undertaking.
- (iii) Capital structure— (Rs. Lakhs)
- (a) The Applicant Undertaking Authorised Capital 2000.00
Issued Capital 1420.72
Subscribed and paid-up capital 1418.41
- (b) The proposed undertaking Same as the applicant undertaking.
- (iv) Proposed location of the new undertaking. Pimpri Industrial Area, Near Pune of Maharashtra Industrial Development Corporation (MIDC).
- (v) Brief outline of the cost of project, the scheme and source of finance. The capital cost of the project is estimated at Rs. 1.00 crore. It is proposed to finance the project through retained earnings of the Company.

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi, under advice to the Company within 14 days from the date of publication of this Notice intimating his views on the proposal and indicating the nature of his interest therein.

Registered Office:
H-2, Connaught Circus,
New Delhi-110 001

Dated: 30th day of August, 1982

for ESCORTS LIMITED.

Sd/-

(CHARANJIT SINGH)

Vice-President & Secretary

COMMODITIES

quiet

Bombay, September 6
Local yarn market was quiet the past week. While 120 D by 55 paise to Rs. 58.05, RC and 150 D CR remained at Rs. 54.80 and Rs. 54.23 respectively. 120 D CR, 100 D SIV D acetate also remained at Rs. 58.37, Rs. 69.38 and Rs. 60.66 respectively.

Subdued trend

Bombay, September 6
Subdued trend prevailed in the castor seeds and their oils market. The weakness in the groundnut and its oil was attributed to the producing and ample arrivals in the city.

Groundnut Karad bold, Saurashtra bold and Saurashtra quality moved down by Rs. 10 each to Rs. 590, Rs. 595 and Rs. 595 respectively per 100 kg. The groundnut oil declined further by Rs. 2.08 to Rs. 134.42 per 10 kg.

Selling pressure persisted in castor seed and its oil following weak advice from Ahmedabad. Besides, exports inquiries were totally nil. Castor seed Madras small and Kanpur bold dropped by Rs. 6 each to Rs. 340 and to Rs. 330 per 100 kg. Castor commercial oil declined by Rs. 2.25 to Rs. 76.25 and castor BSS oil by Rs. 3.25 to Rs. 81.25 per 10 kg.

As a sequel to weakness in the market, linseed and its oil also encountered selling pressure. Linseed bold was offered Rs. 10 lower at

Rs. 470 and its oil Rs. 2.08 at Rs. 115.44 per 100 kg and 10 kg respectively.

Activity was extremely poor in the castor and cottonseed held the ground while groundnut expeller and deoil were weak on lack of fresh support.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:—

3-9-1982 27-8-1982

G. nut Karad bold	590.00	600.00
G. nut oil	134.42	136.50
Cast. Md. Sm.	340.00	346.00
Cast. oil com.	76.25	78.50
Cast. oil BSS	81.25	84.50
Linseed bold	470.00	480.00
Linseed oil	115.44	117.52

Gold and silver up

Bombay, September 6

The prices of both gold and silver rose in the Bombay bullion market during the past week. Standard mint gold opened at Rs. 1,690 per 10 gms and closed higher at Rs. 1,720 per 10 gms. Ready silver (.999 fineness) opened at Rs. 2,650 per kg and closed higher at Rs. 2,695 per kg.

Money easy

Bombay, September 6

Conditions were easy in the Bombay short-term money market during the past week. Interest rates opened at 4.5 per cent and closed at 4.5 per cent at the end of the week.

RALLIS INDIA LIMITED

NOTICE

It is hereby notified for the information of the public that RALLIS INDIA LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-Section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for establishment of a new undertaking for the production, supply and distribution of Chlorpheniramine Maleate and dl-Panthenol (10 tonnes per annum), together with the corresponding formulations permissible under the Government Policy. Other particulars of the proposed undertaking are as under:

Name of the proposed undertaking: RALLIS INDIA LIMITED

Name(s) of person(s) or authority/authorities proposing to establish the new undertaking:

The proposed undertaking will be established by Rallis India Limited. The Company has four Operating Divisions, namely, Engineering, Fertilisers and Pesticides, Pharmaceutical and Chemicals and Export House. The proposed undertaking will form part of the Pharmaceutical and Chemicals Division, which is headed by a Vice-President.

Capital Structure of the applicant person or authority and of the proposed undertaking:

Capital Structure of the applicant Company as on 31st August, 1981

Authorised:	
(i) 1,00,000—6% Taxable Cumulative Preference Shares of Rs. 100 each	Rs. 1,00,00,000
(ii) 8,00,000 Ordinary Shares of Rs. 100 each	8,00,00,000
(iii) 1,00,000 Unclassified Shares of Rs. 100 each	1,00,00,000
	Rs. 10,00,00,000

(B) Issued and Subscribed:

(i) 75,000—6% Taxable Cumulative Preference Shares of Rs. 100 each fully paid-up	Rs. 75,00,000
(ii) 4,96,039 Ordinary Shares of Rs. 100 each fully paid-up	4,96,03,900
	5,71,03,900

(iii) Add: Amount paid-up on forfeited shares	1,800
	Rs. 5,71,05,700

(iv) Proposed location of the new undertaking:

The undertaking is proposed to be located in a backward area at Ankleshwar, District Broach, Gujarat State.

(v) Brief outline of the cost of the project; the scheme and source of finance:

The estimated cost of the Project is:

	Rs. Lacs
(a) Buildings	7.50
(b) Machinery—Indigenous	35.00
(c) Initial Working Capital (margin money)	9.00
	51.50

Scheme & Source of Finance: Requirements of finance will be met by the Company from its own Resources.

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this Notice intimating his views on the proposal and indicating the nature of his interest.

RALLIS INDIA LIMITED
B. K. LASKARI
Company Secretary

Registered Office:
'Ralli House'
21, Damodardas Sukhadvala Marg,
Bombay 400 001.

Dated: 30th August, 1982

INDIAN ECONOMY: BASIC INDICATORS

By Commerce Research Bureau

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	During the week ended				Week	Percentage variation over		
	Aug. 14, 1982	Aug. 7, 1982	July 17, 1982	Aug. 15, 1981		Month	Year	Two years
Manufactured products	276.0	275.5	273.5	278.2	0.2	0.9	-0.8	4.1
Primary articles	282.1	281.1	279.0	274.1	0.5	1.2	3.0	19.1
Fuel, power, lubricants, etc.	455.4	455.4	455.4	437.5	—	—	4.1	28.1
All commodities	293.8	293.1	291.2	290.0	0.2	0.9	1.3	12.2

Money and Banking

	During the week ended				Week	Percentage variation over		
	Aug. 20, 1982	Aug. 13, 1982	July 23, 1982	Aug. 21, 1981		Month	Year	Two years
Money supply (M3) (b)	65,861(a)	65,933	65,674	58,612(a)	-0.1	0.3	12.4	33.1
Bank credit	30,344	30,332	30,575	26,896	—	-0.8	12.8	38.1
Aggregate deposits	46,518	46,361	46,070	40,869	0.3	1.0	13.8	37.1
Foreign exchange reserves (a)	4,105	3,991	3,969	4,027	2.9	3.4	1.4	-29.1

MONTHLY INDICATORS

	Unit	Latest month	Amount/ Index	Previous month	Percentage variation over previous month	Recent rate of growth (per cent)
Industrial production (crude index)	1970=100	June 1982	148.5(a)	161.9(a)	-8.3	6.1
Electricity generation (public utilities)	Million kwh	June 1982	10,453	10,603	1.6	5.1
Exports	Rs crores	March 1982	563	..	..	..
Imports	Rs. crores	March 1982	1,042	..	..	..
Trade balance	Rs. crores	March 1982	-479	..	..	..
Foreign exchange reserves (a)	Rs. crores	July 1982	3,885	3,803	2.2	-18.1
Wholesale price index	1970-71=100	July 1982	290.8	285.4	1.9	1.1
Consumer price index for industrial workers	1960=100	June 1982	470	462	1.7	7.1
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	February 1982	179.6	179.3	0.2	..

ANNUAL INDICATORS

	Unit	1981-82	1980-81	1975-76	1950-51	Percentage variation in 1981-82 over 1980-81	Annual rate of growth between 1975-76 and 1980-81
Population	Crores	69.1(a)	68.4 (d)	60.4	35.8	3.2(g)	2.2(e)
Gross National Product (at market prices)	Rs crores	1,38,000(a)	1,25,744	73,907	9,503	17.5(g)	11.2
Per capita GNP (at market prices)	Rupees	1,997(a)	1,855	1,224	265	14.9(g)	8.2
Real national income (Index)	1970-71=100	144.1(a)	137.9	117.1	48.9	7.7(g)	3.1
Real per capita income (Index)	1970-71=100	112.6(a)	109.9	104.9	73.6	5.3(g)	0.9
Agricultural production (Index triennium ending)	1969-70=100	139.3(a)	135.2	124.8	58.5	15.4(g)	1.6
Foodgrains production	Million tonnes	135.0(a)	130.0	121.0	55.0	18.2(g)	1.4
Industrial production (Index)	1970=100	166.4	154.2	119.7(f)	26.5	7.9	12.1
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.9	30.0	18.6	0.18	36.3	14.1
Electricity generation (public utilities)	Billion kwh	122.9	111.6	79.2	5.3	10.1	7.1
Exports	Rs crores	7,358	6,711	4,043	601	9.6	10.1
Imports	Rs crores	13,110	12,524	5,265	650	4.7	16.1
Trade balance	Rs crores	-5,752	-5,813	-1,222	-49	—	..
Foreign exchange reserves*	Rs crores	3,797	5,316	1,702	911	-28.6	14.1
Money supply (M3) (b)*	Rs crores	62,468	55,451	22,286	2,336	12.7	18.1
Bank credit*	Rs crores	29,642	25,371	10,877	547	16.8	18.1
Aggregate deposits*	Rs crores	43,820	37,988	14,155	881	15.4	20.1
Wholesale price index (average)	1970-71=100	280.2	257.3	173.0	47.5	8.9	8.1
Consumer price index for industrial workers*	1960=100	457	420	286	..	8.8(g)	8.1
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	..	162	93	..	13.3	11.1

Notes: (a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year (d) As on March 1, 1981 as revealed by 1981 Census. (e) Between 1971 Census and 1981 Census. (f) Figures relate to 1975 and 1976 respectively. (g) Percentage variation in 1980-81 over 1979-80 (h) Annual rate of growth (%) between 1975-76 and 1980-81.

* Financial year-end data ** Calendar year-end data (—) = Nil or negligible (..) = Not available

Sugar prices

SIR — This has reference to the Monsoon Crop Commodity Survey for the month of July 1982 published in the *Commerce* issue of August 28, 1982. We are compelled to observe that with regard to the matters relating to sugar, certain statistics furnished therein, may not be quite correct. In the first place, page 351, you have given particulars only for Bombay and Hapur for sugar. You may not have facilities to ascertain particulars in other big cities like Trivandrum, Hyderabad, Madras, Calcutta, Bangalore, etc. You have stated sugar was being sold on 31-7-82 at Rs 545-558 in Bombay, and up to Rs 16 in Hapur. Your silence with regard to other cities makes me believe that this high price is the parameter for prices everywhere. Perhaps, this is one of the reasons that has urged the Central Government to release a gigantic allotment of 3 lakh tonnes in the open market to bring down the price of sugar.

The price of sugar at Rs 550 never existed in July in the southern parts of India. The factories here were struggling even for Rs 450-460 per quintal and prices quoted by you are higher by Rs 100 per quintal. Similarly at page 341 of the issue 'Table regarding Retail prices of essential commodities in Bombay', you have stated the price of sugar was Rs 5.40 per kg in the retail market on August 20, 1982. Perhaps, you do not know the sugar was available even for Rs 4.20 per kg in the interior villages in small petty shops and street corner shops in Tamil Nadu and other places. In the absence of your inability to give a full picture of the country as a whole, such statistical information as given in your valuable and responsible journal gives the impression to the authorities and policy makers that sugar prices are ruling high and government should intervene to bring it down. We would, therefore, urge you kindly to collect up-to-date statistics from all state headquarters or at least from various regions and incorporate them in your issues, so that the position may be brought out on an overall basis through the country.

We hope the observations above will be taken in the right mind and good spirit and the correct position incorporated in the future issues so that the sugar industry in the South, which is in a critical state of affairs with regard to finances, may not be handicapped by such publicity in a leading journal like yours. There is no comparison of prices in Bombay and Delhi alone for sugar and the country consists of other big cities also in various other regions. We are sorry we are obliged to bring this to your notice so that it may be taken in the proper perspective, and a correct and realistic picture of overall situation is presented in your journal, which is considered by the policy makers, as an authentic and authoritative one.

K.S. Ramamurthi,
Secretary,
The South Indian Sugar Mills Association.
MADRAS.

HYDERABAD ASBESTOS CEMENT PRODUCTS LTD SANATNAGAR, HYDERABAD-500 018. NOTICE

It is hereby notified for the information of the Public that Hyderabad Asbestos Cement Products Limited proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a Notice under Sub-Section (1) of Section 21 of the Monopolies and Restrictive Trade Practices Act, 1969, for substantial expansion of its activities by re-endorsement of capacity in terms of Government Press Notes No. 10 97/81-LP dated 21-4-1982 and 3-5-1982. Brief particulars of the proposal are as under:

i. Name(s) of person(s) Body Corporate owning the undertaking.
Hyderabad Asbestos Cement Products Ltd.,
Sanatnagar, Hyderabad-500 018 A.P.

ii. Capital Structure of the applicant undertaking.
Authorised Rs. 3,50,00,000
Issued, Subscribed and Paid-up. Rs. 2,85,76,501

iii. Details of the proposed substantial expansion:

a. Names of new goods to be produced, supplied, controlled or distributed or of new services to be rendered.
Not applicable.

b. In the case of substantial expansion of existing activities.

1. Name of goods.	Asbestos Cement Sheets, Pipes & Fittings.	Asbestos Cement Sheets.	Asbestos Cement Pressure Pipes.	Com- pressed Asbestos Cement Sheets.
2. Capacity before expansion. (M. Tons).	1,20,000	72,000	30,000	24,000
3. Expansion proposed by re-endorsement of capacity (M. Tons).	1,93,301	1,08,989	49,044	32,316
4. Location of the Project for substantial expansion.	Hyderabad Andhra Pradesh.	Ballabgarh, Haryana.	Ballabgarh, Haryana.	Jasidih Bihar.
5. Brief outline of the cost of the Project, the scheme and source of finance.	Not applicable.			

2. Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi within 14 days from the date of publication of this Notice intimating his views on the proposal and indicating the nature of his interest therein.

Hyderabad,

Date: 10-8-1982.

G. R. DESAI
SECRETARY: COMPANY LAW



THE KARUR VYSYA BANK LIMITED

Regd. Office : Jawahar Bazaar, Karur 639 001

HIGHLIGHTS OF PERFORMANCE, 1981

- The Bank's advances to Priority Sectors increased from Rs. 1,284 lakhs to Rs. 1,442 lakhs.
- The net profit of the Bank increased from Rs. 14.10 lakhs to Rs. 22.24 lakhs.
- The Bank issued 40,000 Right Shares of Rs. 25/- each, which were fully subscribed.
- The Bank declared a dividend of 15% p.a. (taxable) for the year 1981.
- Transfer to Reserve Fund from the profits of the year 1981: Rs. 10.25 lakhs.

ABRIDGED BALANCE SHEET AS AT 31ST DECEMBER 1981

(Figures in thousands of rupees)

1980	LIABILITIES	1981
2,999	1. CAPITAL (INCLUDING CALLS IN ADVANCE)	3,464
7,062	2. RESERVE FUND AND OTHER RESERVES	9,582
7,05,499	3. DEPOSITS AND OTHER ACCOUNTS	7,96,301
22,037	4. BORROWINGS FROM OTHER BANKING COMPANIES, AGENTS, ETC.	22,708
12,976	5. BILLS PAYABLE	14,623
34,168	6. BILLS FOR COLLECTION, BEING BILLS RECEIVABLE (AS PER CONTRA)	37,236
34,791	7. OTHER LIABILITIES	32,489
50,539	8. ACCEPTANCES, ENDORSEMENTS AND OTHER OBLIGATIONS (AS PER CONTRA)	79,408
450	9. PROFIT	534
8,70,521	TOTAL	9,96,345

1980	ASSETS	1981
1,55,680	1. CASH IN HAND AND WITH BANKS	1,52,339
NIL	2. MONEY AT CALL AND SHORT NOTICE	1,100
1,75,924	3. INVESTMENTS AT COST	1,94,403
4,19,001	4. ADVANCES	4,96,659
34,168	5. BILLS RECEIVABLE BEING BILLS FOR COLLECTION (AS PER CONTRA)	37,236
50,539	6. CONSTITUENTS' LIABILITIES FOR ACCEPTANCES, ENDORSEMENTS AND OTHER OBLIGATIONS (AS PER CONTRA)	79,408
2,282	7. PREMISES	2,225
3,592	8. FURNITURE AND FIXTURES	3,907
29,335	9. OTHER ASSETS	29,068
8,70,521	TOTAL	9,96,345

Chairman: G. VENKATESAM

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COMMERCE

Vol. 145 No. 3719 September 18, 1982

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THE WEEK

The Industrial Credit and Investment Corporation of India Ltd. has raised a \$ 12 million Euro-dollar loan in Singapore.

The Union Government has released an additional quota of gents shirts to the UK under the millmade and powerlooms category.

The Union Commerce Ministry has asked the Tea Board to prepare an exhaustive rehabilitation project for the Indian tea industry to be submitted to the International Development Association and Asian Development Bank.

India and the Soviet Union have signed a protocol on co-operation in irrigation and water conservation.

The interest rates on inter-corporate borrowings have fallen from 22 per cent to 19.5 per cent.

The ONGC and Red Adair experts capped the blow out in SJ 5 well at Bombay High on September 11 in a record time of 43 days.

ESPI Industrial Corporation, a private company based in Faridabad, has signed an agreement with the China National Agriculture Machinery Import-Export Corporation for the manufacture of rice transplantation machinery.

The Godavari Fertilisers and Chemicals Limited will set up a Rs 83 crore diammonium phosphate fertiliser plant at Kakinada in West Godavari district in collaboration with the Indian Farmers Fertiliser Co-operative Ltd.

The banking industry has suggested an increase in the rate of interest on short-term bank deposits to the Reserve Bank to arrest the sharp decline in the growth of bank deposits.

The Union Energy Ministry is preparing a financial package for the mini hydel programme and plans to create a credit facility for the programme on the lines of the one available for the rural electrification programme.

Poland will import about three lakh tonnes of groundnut extractions from Gujarat. Its quota for groundnut extraction exports from India has been increased to six lakh tonnes in the current year.

Oil and gas have been struck off the Porto Novo structure, 40 km off shore of Pondicherry.

The British Coal Mining Board will provide technical assistance to India for preparing a modernisation plan for underground mines.

Money easy

Conditions in the Bombay short-term money market were easy as of Monday (September 13, 1982). In the inter-bank call money section both notified and commercial funds were renewed at 4.5 per cent. Fresh money was transacted at 4.5 per cent. The market closed at 4.5 per cent.

Wholesale price index

At 294.0 the latest available wholesale price index for all commodities for the week ended August 28, 1982 showed a rise of 0.1 per cent over the week and 2.4 per cent over the year.

PEOPLE

Mr Upendra M. Patel, chairman and managing director, Shri Dinesh Mills Ltd, Vadodara, has been elected chairman of the Indian Woollen Mills' Federation. Mr S.K. Modi, vice-chairman and president of Modi Carpets Ltd, New Delhi and Mr. B. Rathke, president of Oriental Carpet Manufacturers (India) Ltd, Amritsar, have been elected deputy chairman and vice-chairman respectively.



Patel

Mr J. S. Varshneya, chief general manager of the State Bank of India in Gujarat, has taken over as the chief general manager of the Orissa circle of SBI at Bhubaneswar.



Varshneya

Mr Thomas P. Ivanyi, vice president, Citibank, has been appointed country head for corporate bank, and public sector group head for India, based in New Delhi. Prior to this assignment Mr. Ivanyi has held senior positions in New York, Brussels and Paris.



Ivanyi

Mr S. Sundaramurti has been elected president of the Madurai Ramnad Chamber of Commerce. He has been vice-president of the chamber for the last 3 years and is also vice-president of the Tamilnadu Foodgrains Merchants' Association, Madurai.



Sundaramurti

Mr J. N. Mehrotra, president of the Indian Machine Tool Manufacturers' Association and director of Batliboi & Company Ltd, is leading a delegation of IMTMA for discussion with National Machine Tool Builders Association of USA and also to meet importers from other countries who will be participating in the Chicago Fair.



Mehrotra

Mr J. G. Parikh, director of the Silk and Art Silk Mills' Research Association (Sasmira), Bombay, has retired. Mr Parikh joined Sasmira in 1951 as founder secretary and rose to the position of director in 1965. Author of the book "Man-made Fibres: Cellulosic and Synthetic", Mr Parikh has been the editor of the official organ of Sasmira — "Man-made Textiles in India" — and has to his credit over 250 articles, papers and reports dealing with various aspects of man-made textile industry and technology published both in India and abroad.

COMMERCE

SEPTEMBER 18, 1982

Why not joint sector in power ?

THOUGH the state electricity boards do not have a creditable record in either generation or transmission of power, the resistance of the state governments for a greater say by the Centre in their power programmes is understandable. The Centre is just not more efficient than states. Politically also such a step would have created to avoidable tensions. As it happened, the recent conference in New Delhi of state power ministers dispersed without coming to any agreement on the amendments to the Electricity Act which the Government of India has in view to implement the recommendations of the Rajadhyaksha Committee on Power for the setting up of regional electricity generating corporations and regional electricity authorities. As an official press release explained, while generally agreeing on the need for setting up a national grid and its integrated operations, the states differed on the mechanism through which the grid system could be set up. It was, therefore, decided that the Union Energy Ministry should have separate discussions with each state on the setting up of the regional electricity authorities. It is doubtful whether any progress will be made at talks with individual states when a gathering of power ministers failed to come to a consensus.

The states have justifiably come to identify the recommendations of the Rajadhyaksha Committee as a threat of encroachment on their authority and powers of planning for the power development in the state, and they are not far wrong in this. The basic recommendation of the Rajadhyaksha Committee was that by the year 2000 A.D. the Centre should own 45 per cent of all power generation and the committee itself calculated that, on this basis, 60 per cent of the additional installed capacity from 1984-85 onwards will have to be in the Central sector. It is for the purpose of implementing the plan to instal an average of over 3,000 mw a year by the Centre that the committee suggested a setting up of the regional electricity generating corporations as also regional electricity authorities to plan power development in their regions and control the flow of power between the states through their ownership of transmission lines and associated substations. These recommendations thus clearly implied that the states would have very little voice in the power development programme of their territories and that the task would be virtually taken over by the Centre, whose regional electricity authorities and generating corporations would decide the priorities to be fixed. If Gujarat or Maharashtra desired a faster electricity development programme to meet the speedily increasing needs of industry and agriculture, they would not be free to go ahead with such programmes. If the Centre decided that some other states in the region needed to be given preference either because of the power shortage they were experiencing or to hasten their economic development. Maharashtra and Gujarat would have to wait in the queue.

The Rajadhyaksha Committee itself had suspicions that the states would interpret its recommendations as over-centralisation of power generation and had hastened to explain that it was itself against over-centralisation. It had pointed out that there was no

evidence to suggest that Centrally-owned power stations operated at higher levels of efficiency than the state-owned ones and, in fact in many cases the converse was true. Several of the boards man power stations which compared favourably in operation terms with the best in the world. Against this background it was a surprise itself that the committee should have advocated a share of as much as 45 per cent for the Centre in power generation.

And yet there is something wrong in the whole organisation set up to take care of power development programmes. Year after year, despite the heavy financial investments made, we are lagging far behind in the fulfilment of physical targets. Shortfalls during the various plans have varied from 15 to 35 per cent and as much as 50 per cent in the Fourth Plan. The new Plan does not promise anything better. As against the targeted addition to capacity of 11,800 mw, no more than 7,500 mw will be added during the first three years of the current Plan. As the Rajadhyaksha Committee has pointed out, capacity utilisation of the power projects continues to be low and transmission losses are of the order of 20 per cent and more. The private sector electricity generating companies have shown far better performance with the load factor in Tata Electric Companies being as high as 77.8 per cent in 1981-82 as against 47 per cent for the government = owned electricity boards and companies.

The anxiety of the states to guard their autonomy and of the state electricity boards set up by them is understandable. But it needs to be emphasised that the people have to pay a heavy price for the inefficient working of these boards. There is no guarantee that even if the tariffs are raised, the electricity boards would no longer be in the red, as most of them are, and that efficiency would improve. Somehow or the other the culture of efficiency and economy in the private sector generating companies has to be transplanted in the state electricity boards. That state-owned electrical utilities in Britain, Canada and some other industrialised countries operate quite efficiently goes to show that the character of ownership does not decide the efficiency. But since the Rajadhyaksha Committee has pointed out that, here in our country, Centrally-owned power stations do not necessarily operate at higher levels of efficiency than state-owned ones we could try the experiment of joint sector units in power generation. This association of private sector with the public sector will be one way of transplanting the private sector culture of efficiency and economy in the area of power generation. The states which are associated with the private sector in a large number of joint sector industrial projects and are showing greater and greater keenness in such associations, would possibly not resent such a development. It is not so much important as to whether the Centre or the states own the power generating capacity, more important is that this capacity should be utilised to the optimum level. Anything that promises to bring this about should be welcomed even if it be greater share for the private sector in association with the state electricity boards in the power programme.

FUND-BANK MEETING

Isolated America makes minor concessions

From HASMUKH SHAH

TORONTO, CANADA

THE joint annual meetings of the International Monetary Fund and the World Bank, which ended here in the second week of September, witnessed the spectre of disintegration of the international financial system. The conference also witnessed the isolation of the United States from the rest of the world. The United States opposed every move to strengthen the financial resources of the IMF, the world Bank and the IDA. But when it found that its conservative stance would harm American banks the most, the United States agreed to some increase in the resources of the IMF. The US did not, however, commit any further new contribution to the World Bank's soft loan affiliate IDA, although other industrialised countries, for the first time, ignored the United States and decided to make their contribution irrespective of American contribution. So IDA was partially saved, but its character might change.

The Finance Ministers, central bankers, business leaders and economists from 146 nations had assembled to come to grips with the crisis facing the world's banking system. The case of Mexico and other debt-plagued countries made it very clear to the participants that something must be done to keep the staggering debt of the Third World countries from dragging down the banking system of the industrialised world. The solutions, lay majority agreed, in finding a way to manage these debts without setting off a devastating new round of world inflation.

Situation graver than the thirties

At the start of the meetings, there was a vague apprehension of the abyss into which the world's monetary system might fall. Just before the start of the meetings, Mr Denis Healy, the British Labour Party's shadow Foreign Secretary and former Chancellor of the Exchequer of UK, called the Toronto meetings of the IMF as "the last chance to save the world ... from catastrophe even greater than the slump of the 1930s."

Countries such as Mexico (with foreign debts of about 80 billion dollars), Poland (27 billion dollar debts), Argentina

(about 39 billion dollar debts), Brazil (70 billion in foreign debts), Bolivia (4 billion dollar debts), found it impossible to pay interest on their existing debts, let alone the capital, and stay afloat. Many Third World countries, he said, face the prospect of economic collapse, political anarchy and starvation. "The risk of a major default triggering a chain reaction is growing every day," Mr Healy added.

During the sessions, the Finance Ministers and bankers walked up to the abyss, took a good look and decided not only that it was horrible but that they should move promptly to reconcile their differences over what needs to be done to keep nations and the world from sliding into the pit.

Consensus on IMF role

It was the general consensus that the IMF has a vital role to play in coping with the stresses and strains of the international financial system, and it must continue playing a major role as the lender of the last resort in protecting the world economy. Hence, the participants agreed upon to take concrete measures to save the global banking system. But there was a wide disparity between the views of the United States and the rest of the participating nations. The Americans were criticised for not coming forward in the first place with a coherent plan, that would inspire confidence that the United States was determined to tackle the debt-default problem forthrightly.

In the beginning the United States had been portrayed as scrooge-like in its response to proposals for rescuing countries endangered by debt. The United States in turn portrayed others as profligates, who thought they could solve problems by throwing money at them, so much money as to aggravate inflation.

By the time the meetings were over, however, Mr Beryl Sprinkel, Under Secretary of the US Treasury for Monetary Affairs and Principal US Negotiator at Toronto, was saying that the differences between nations had been markedly narrowed. He spoke of common "understanding and sympathy" for the plight of the debt-plagued and fearful Third World while stressing that nations

seeking financial help had to "get their budgets under control" and to "get their exports up" or no rescue would be forthcoming.

The gap between views on the need for increased IMF quota, the Fund's lending capital, had also narrowed. At the beginning Washington seemed to want an insignificant increase above the Fund's present total of 65.9 billion dollars, while other countries were calling for increases ranging from 100 per cent to 250 per cent. Although no resolution of the difference was reached at the Toronto meetings, Mr Sprinkel indicated that other countries have been moving down and the United States moving up, but he refused to put a number on what the two might settle for.

US view prevails

In the final stages, the United States demonstrated that it was providing leadership rather than dragging its feet, and the outcome of the meetings revealed that the views of the United States prevailed on the IMF funding issue; the main issue at the Toronto Conference. In a briefing toward the close of the meeting Mr Sprinkel said, the United States is now ready to agree to an "adequate" quota increase, but, he added, the IMF and large multinational banks, that lend money to countries with balance of payments problems, must demand strict conditions. "We do not believe you can solve problems by throwing money at them", said Mr Sprinkel.

While the United States had been arguing for a quota increase of the order of 25 per cent to 50 per cent, many European countries had pressed for a 100 per cent rise, and some developing countries had been pushing for a 200 per cent increase in quotas. The IMF Interim Committee endorsed a "substantial" increase, with the United States dissenting.

Despite the general agreement on the necessity of increasing the IMF resources, the 37th Fund-Bank meeting turned out to be inconclusive, in that industrialised nations put off, at least until next April, deciding how much the Fund's lending authority should be strengthened to help the debt-ridden countries. The United States did affirm its desire to make mor-

sources available, but differed from most of its partners about how much more. The United States gained support for its own idea to create a "Special Emergency Fund" that would be coming into being before the IMF's quota increase. The US won the support of the IMF's Managing Director, Mr Jacques Larosiere, as well as many other countries, for its proposal for this emergency fund to rescue Third World countries, which are on the brink of default. However, the size and working details of this emergency fund were not disclosed by the US. It is learned, however, that initially 10 billion dollars may be funded for this emergency fund.

The Americans and the major European nations agreed at the Fund-Bank meeting to provide as yet an unspecified amount of additional resources to assure that the IMF will be able to handle the emergencies created by the growing debt of the Third World nations, and the US view here prevailed that the IMF resources will be augmented only if heavily-indebted nations agree to a long period of economic belt-tightening. This sort of austerity, called 'adjustment', implies a set of measures for debt-ridden nations that are intended to increase their foreign exchange earnings and thus their ability to repay debt but at the expense of such things as subsidies for food, housing and other social programmes. This austerity entails painful cuts in public subsidies, higher taxes and currency devaluations, which are intended to increase exports but often result in inflation.

Representatives of many countries, including India, expressed strong disapproval of such harsh measures, stating that the austerity packages that the IMF negotiates with the borrowers could be a prescription for social agitation. Governments have been overthrown for accepting conditions regarded as too onerous. "The IMF may end up causing more revolutions than Karl Marx ever dreamed of," commented a participant.

Clausen's role

And the harsh measures sought by the IMF have stirred strong protests in Mexico. Warnings by West German Finance Vice-Minister Horst Schulmann and US Treasury Official Mr Sprinkel at Mexico should be obliged to adopt "a draconian" fiscal measures in exchange for some \$ 4 billion in IMF financing have sparked a political furore in Mexico. Even some business associations have heeded the call by politicians and labour

leaders to reject an IMF agreement if it "compromises our sovereignty"

The world bank President Mr A.W. Clausen won a great deal of praise from most of those attending the sessions for his remarkable performance, especially in championing the cause of the Third World. Mr Clausen won high marks for carrying on the battle against poverty in the best Robert McNamara tradition.

When Mr Clausen took over as the World Bank president last year, many at the bank feared that he had little knowledge of the poor countries and the developing nations thought that the man from the Bank of America may turn the World Bank into a commercial bank, forgetting that the World Bank was a development agency. Most of these apprehensions have vanished and Mr Clausen has shown that he is sensitive to the problems of the Third World nations. This was evident from his untiring efforts to keep the International Development Association — the softloan agency of the World Bank — alive.

Mr Clausen's efforts resulted into an agreement among the delegates — except the US — at the Toronto conference to make some 3.5 billion dollars in both 1983 and 1984 available to the soft loans by the IDA and to increase the flow of money to developing countries through co-financing arrangements and insurance protection of private banks. Negotiations on a seventh replenishment for 1985 will begin in November.

Rebuff to USA

While most countries have indicated they will pay their money into IDA's regular account, six nations — France, Canada, Italy, Norway, Denmark, and Sweden — chose to pay into a "parallel fund" with restrictions on the use of the money to buy from American companies. A Norwegian delegate described it as "punishing the United States for its stubbornness".

India's stand

Addressing the joint Fund-Bank meetings, Mr Pranab Mukherjee, India's Finance Minister, said that the decline in international liquidity had necessitated the urgency for resuming the allocation of the Special Drawing Rights. Similarly, the decline in the official development assistance (ODA) was a matter of great concern to "developing countries, he declared. The Indian Finance Minister urged the substantial enlargement of the IDA assistance during the seventh replenishment.

Mr Mukherjee criticized the harshness of the "conditionality" of the IMF and stated that even drastic adjustment policies might fail to produce satisfactory results due to the prevailing high interest rates, rising protectionism and sharp cutbacks in the development assistance. He regretted that pressure were being brought on the Fund to tighten its conditionality further in order to ration its resources and make the access of developing countries even more difficult.

Underlining the need for expanding the resources of the Fund, Mr Mukherjee said that the Fund's quota should at least be doubled from its present level of 67 billion dollars.

Earlier, speaking before the Commonwealth Finance Minister's conference in London, Mr Mukherjee expressed his concern over the attempts by some to alter the developmental role of the World Bank. The Indian Finance Minister stressed the need to retain the independence of multinational institutions and criticized the move toward aligning the World Bank's policies closely with those of the commercial banks. He pointed out that, even if some developing nations can borrow commercially, most of these nations cannot do so without soon reaching the limits of their borrowing capacity, thus creating a severe resource squeeze.

During his visit to Washington, the US capital, Mr Mukherjee met the leading officials of the US Departments of Commerce and State and executives of the US International Trade Division, and exchanged views on multilateral issues, especially problems in regard to IDA. Among the bilateral issues, the Finance Minister discussed the issue of taxation and GATT provisions. He told the US officials that India was opposed to changes in objective criteria in determining the eligibility of getting IDA funds.

Addressing members of the US chamber of Commerce in Washington, Mr Mukherjee said that India offered a good market for foreign investment. In this matter, he referred to the positive measures the Government of India had taken such as simplifying licensing procedures and regulations, reducing bureaucracy, liberalizing import policies. He said a very substantial scope existed for enlarging Indo-US collaboration in industry and business. Speaking to the Indian correspondents in Washington, Mr Mukherjee said that the United States was the single largest trade partner of India and there were good prospects for improving the trade between the two.

LETTER FROM COLOMBO

Planned reduction in share of public sector

From CLARENCE FERNANDO

THE present United National Party (UNP) government of President Junius Jayewardene which enters its sixth and final year before the general elections this month is continuing its general economic strategy based on the policy package introduced when it assumed office in 1977.

The policy package helped Sri Lanka to move away from a long period of rigid government controls to one in which market forces and the private sector played an increasing role. The wide-ranging reforms which freed the economy included a unification of the currency, abolition of import and exchange controls and higher incentives to producers. The reforms also brought a more realistic interest rate structure, decontrol of prices, tariff and budgetary reforms and a diversion of resources from consumption to investment. The strategy has been worked through a series of rolling five-year public investment programmes.

The Public Investment Programme 1982-1986, the fourth in the series of rolling programmes issued recently as the government enters its sixth and final year, shows that the total resources available to the public sector during this period will be Rs 112.5 billion or 55.2 per cent of total investible resources. This includes the retained profits of public corporations and their borrowings, cess funds, etc, which are estimated at Rs 17.7 billion, thus giving a net budgetary provision of Rs 97.8 billion.

The government's investment programme, launched in 1978, stressed the need for rehabilitation and improvement of the economic infrastructure. It was launched at a time when the international economic climate was more favourable. It grew at an unprecedented rate with positive response and encouragement of donor countries and multilateral agencies. The programme had a high foreign aid component in it and because of its committed and ongoing nature, lacked flexibility for adjustment. Some adjustments were made each year within the flexibility provided following the deterioration in the external economic environment. However, the adjustments were insufficient to avoid serious budgetary gaps.

In 1980 the capital expenditure exceeded targets set in the budget and attempts to finance the higher nominal level of expenditure resulted in an unprecedented recourse to financing from bank sources leading to inflationary pressures. These were due to factors beyond Sri Lanka's control. The government could not continue with this high level of expenditure and in November 1980, Finance Minister, Ronnie de Mel presenting the budget for 1981, imposed a drastic 25 per cent cut in capital expenditure. In March 1981, the capital budget was reviewed again and a new ceiling of Rs 12,041 million on capital expenditure was set to ensure adherence to ceilings which involved a further 10 per cent reduction in the capital expenditure of most ministries.

Along with these cuts came tighter monetary controls imposed by the central bank. The response to the measures adopted in 1980 and 1981 was remarkable. Gross fixed capital formation which reached the unprecedented level of 31.3 per cent of the GDP at current market prices in 1980 declined to 28.7 per cent in 1981. The government's capital expenditure, which was 19.3 per cent of the GDP in 1980, came down to 14.2 per cent of the GDP in 1981. The overall budget deficit declined from 23.1 in 1980 to 15.4 per cent of GDP in 1981.

In 1981, broad money supply increased by only 23 per cent in sharp contrast to an increase of 32 per cent in 1980 and 38 per cent in 1979. The decline in money supply was even more pronounced increasing by only 6 per cent in 1981 in contrast to increases of 23 and 29 per cent in 1979 and 1980 respectively. Retail prices, as measured by the Colombo consumer price index which had increased by 26 per cent in 1980, increased by only 18 per cent in 1981.

The current deficit in the balance of payments declined from 19.9 per cent of GDP in 1980 to 14.3 in 1981. Gross external reserves, which had reached a precarious level of 1.5 months' imports by 1980, improved to a level of 2.2 months of imports by 1981 end. For the first time since the introduction of the liberalised trading system, the value of imports

recorded a marginal decline in S/L terms. Notwithstanding these stabilisation efforts, the economy grew again by 5.8 per cent in 1981. "These were indeed remarkable achievements, particularly in the unfavourable international economic climate", the Finance Minister says.

Projections for the years 1982-1986 show a planned reduction in total investment and the relative share of the public sector. A welcome feature in the programme is the availability of resources after 1984 for new projects. The availability has been assessed on the assumption that foreign aid will remain at about 8-9 per cent of GDP over the period 1982-1986. If this aid does not materialise the programme would have to be cut down further jeopardising the achievement of the government's development objectives.

The total public investment (including extra-budgetary investments) in the 1982-1986 period will decline from 19.2 per cent of GDP in 1982 to 13.3 per cent in 1986, while budgeted public investment is seen to decline from 16.7 per cent of GDP in 1982 to 11.1 per cent. The share of the giant river basin project on the Mahaweli River development project, on which the country banks heavily to pull the economy on an even keel is seen to reduce from 40 per cent in 1982 and 30 per cent in 1983 to 27 per cent in 1984 and 20 per cent in 1986.

The housing and urban development programme which used up 7.4 per cent of the government capital budget in 1980 and 1981 has been pruned down to 5 per cent of the government capital budget for the next five years. Sectors which have got major increases are plantations with a trebling of allocations by 1986, the power sector, non-Mahaweli, irrigation, and minor export, and agriculture.

The largest allocations are to the agricultural sector where investment levels have been maintained steadily at around 38 per cent. Economic overheads sector of transport and roads, telecommunications and power come next with an average allocation of about 32 per cent for the period. Investment in social overheads is maintained at around 20 per cent.

EDITOR'S NOTEBOOK

Vadilal Dagli

Irrepressible Indian

Sheikh Abdullah, who died at the age of 77 on September 8 in Srinagar, a regional colossus whose shadow fell over the Indian sub-continent. He was more than the Chief Minister of Jammu and Kashmir. In fact he was Kashmir. He was one of the few surviving stalwarts of the freedom movement. Despite numerous misunderstandings about his role in Indian politics, one can unhesitatingly say that he was secular. But a secular Muslim. Although he had the stature of one of the top leaders of the Indian National Congress and although he was a personal friend of Jawaharlal Nehru, he was so decreed that he could not play an effective role in Indian politics. But in Kashmir, whether in power or out of power, his word was law.

Sheikh Abdullah was born on September 5, 1905. His father was a handloom-weaver. He was educated in Srinagar, Lahore and at Aligarh Muslim University from where he obtained his B.Sc. degree in chemistry. He started life as a science teacher in a high school but then he established the Jammu and Kashmir Muslim Conference when he was 27. On the advice of Jawaharlal Nehru he changed its name to National Conference to make it a secular organisation. He opposed Jinnah whom he told "Religion can never become a unifying force even among Muslims" (how prophetic was this utterance in the context of the separation of Bangladesh from Pakistan in 1971!) So when in 1947 Pakistan invaded Kashmir, and when the Maharaja fled, Sheikh Abdullah became the head of the Kashmir's emergency government. Gandhiji was impressed by Sheikh Abdullah's achievement and in 1948 he became the first popular Prime Minister of Jammu and Kashmir. But within five years his relations with the Central Government headed by Jawaharlal Nehru deteriorated and in August 1953 he was arrested for alleged conspiracy with the United States in declaring Jammu and Kashmir an independent nation. He was released briefly in 1958, but was again re-arrested and remained in jail till 1964. He started negotiations with Pakistan at Nehru's

instance, but after the death of Nehru, some of his pronouncements led to his arrest in 1965. He was released in 1968. Mrs. Indira Gandhi started negotiations with him and in February 1975 he was installed again as the Chief Minister of Jammu and Kashmir. This post he held till his death.

It is rather tragic that Sheikh Abdullah should have remained in prison for nearly 14 years after independence. But he was made of the stuff which admitted no compromise. I met him in early 1974 when he was permitted to stay in Kashmir. I found that he was not bitter at all. When I suggested that why should he remain in the courtyard when the palace was available to him, he grasped the point and replied immediately: "We still do not have a climate which would facilitate the installation of a Muslim as Prime Minister in New Delhi." When I told him that things have changed considerably, he agreed, but then he made a point which only the Sher-i-Kashmir could do: "I may not be able to take interest in all-India affairs if the situation in Kashmir remained unsettled. The moment I turn my back vested interests and communal forces would create trouble here and I have to come back". It was only a year after this observation was made that he returned to power. His resumption of the Chief Ministership in 1975 cemented the bonds between Kashmir and the rest of India. I think Pakistan missed a great opportunity in not suggesting a compromise formula when Sheikh Abdullah was alive. It is not surprising that the Pakistan Government was so taken aback by the sudden death of Sheikh Abdullah that its rulers found themselves speechless. Sheikh Abdullah's life and sufferings should strengthen the secular and civilised forces not only in India but also in Pakistan and Bangladesh.

Sheikh Abdullah was quite bitter about the opposition parties in the country. He told me that he once took an active part in organising a meeting of the opposition leaders to work out an alternative to Congress Party led by Mrs. Indira Gandhi. "We met, we discussed the issue, but nothing happened because we could not select a leader who could be

the spokesman of the entire opposition. Everyone wanted to be the leader". When he said that he was uncharacteristically bitter. So, ultimately he made peace with Mrs. Gandhi and restored political stability in Kashmir.

There will always be a controversy about Sheikh Abdullah's stand about autonomy for Kashmir. He thought that the Centre should concern itself with defence, foreign affairs and communications. The rest should be left to the state governments. This might appear almost secessionist to the rulers in New Delhi, who have made chief ministers more ineffective than even the chairman of a small town municipality. Step by step the Centre has been increasing its domain and in the name of national unity it has been weakening the languages and cultures of other regions as has been recently witnessed in the so-called national programme on Doordarshan which has emaciated regional programmes in all states. So when Sheikh Abdullah demanded autonomy, he wanted to halt the tendency towards centralisation.

He had no illusions about Pakistan. He also realised that Kashmir cannot remain an independent nation — a sort of buffer state between India and Pakistan when two major powers like the Soviet Union and China were active in the north. But he wanted India to become a federal nation both in letter and spirit. A manifestation of regional creativity should not be considered as treason. In my view Sheikh Abdullah's major contribution to our political life was his struggle for power for the states. One may admit that he would have liked to become the undisputed ruler of an independent nation but geography was against him. He realised it and he had made his choice. He had also unambiguously rejected communalism in the beginning of his political life and remained steadfast in that rejection in the evening of his illustrious career. Even when his passport was impounded in 1965 when he was in Saudi Arabia and even when it was certain that he would be arrested, he decided to return to India rather than remain in exile. This was certainly an act of courage. More than that it was a rare act of identification with his homeland.

SPECIAL REPORTS

Kashmir after Sheikh

From O. N. KOUL

SRINAGAR

AN immediate consequence of Sheikh Abdullah's death here on the evening of September 9 at the age of 77 is the ascendance to Chief Minister's position of his eldest, 46-year old son former Lok Sabha member, Dr Farooq Abdullah. The succession received the unanimous approval of the ruling National Conference legislature wing here on September 11.

However, it might surprise many to know that this apparently smooth succession was brought about by the intervention of Maulana Masoodi, who was the first general secretary of the National Conference in post-independence Kashmir and who led State Janata Party in the June 1977 mid-term election in opposition to Sheikh. Mr Masoodi has now emerged as Farooq's principal theoretician and tactician. It was he who brought about the reconciliation between Farooq and his estranged brother-in-law Gulam

Mohmad Shah, who resigned as State's Works and Power Minister on August 17, apparently in protest against the Sheikh's succession plans. Mr. Masoodi brought the two together on September 5 and was present at the National Conference legislature party meeting at which the unanimous confidence was expressed in Farooq's leadership.

Mr. Masoodi's involvement in National Conference affairs may be motivated by Dr Farooq's keenness in avoiding an intervention by Congress (I) ruled Centre on the pretext that National Conference infighting was bound to create instability in the border state of Jammu and Kashmir, where extremist elements like Jamait Islami had lately been active, and where Pakistan was on the look out for an opportunity to cause mischief. Dr Farooq can depend on the reverence expressed by teeming millions towards his

late father. He can also count on esteem in which people hold his mother but he also needs a tactician of Masoodi calibre, elder to late Sheikh, in the game of politics which is different from the society golf played by Dr Farooq so far.

Clearly no efforts will be spared to ensure that power stays with the National Conference in Jammu and Kashmir, preferably with the Sheikh's family, which has had unique association and identification with the State's freedom struggle from Dogra autocratic rule. This may not be to Congress (I) liking, whose first major bid to recapture power within two years of Sheikh's return to office in February 1975 had failed miserably. At that time the Congress withdrew support to Sheikh's ministry which led to the dissolution of the assembly..

Apparently in appreciation of the fact that her state unit's efforts to destabilise Sheikh had failed and that her party base in the state had not widened over the years, Mrs Indira Gandhi chose to identify herself more openly with the Kashmir leader as his end came near. She visited him twice after he fell ill in June last and, preceded by President Zail Singh, she descended on the valley with plane loads of Union Ministers and Chief Ministers to attend Sheikh's burial. The best she could bargain for was co-operation between National Conference and Congress (I), an objective publicly taken over himself by Dr Farooq, who has maintained close personal relations with Mr Rajiv Gandhi, MP. How far shall these two go will become clear when they hammer out an arrangement for the next election due in June next in Kashmir.

Co-operation between the two is vital for the state's stability and integrity. Congress (I) can restrain National Conference from resorting to populist and impractical slogans like restricting the Centre's authority in the State and opening Srinagar-Rawalpindi road or resettling the state subjects settled in Pakistan in

New Chief Minister of Jammu and Kashmir

DR Farooq Abdullah has taken over as Chief Minister of Jammu and Kashmir, after the death of his father Sheikh Mohammed Abdullah. Born on October 21, 1937, Dr Farooq Abdullah, 45, assumed charge as Chief Minister of Jammu and Kashmir on September 9, 1982. Earlier he was Health Minister in Sheikh Mohammad Abdullah's cabinet. Dr Farooq Abdullah was elected to Lok Sabha from Srinagar parliamentary constituency unopposed in 1980. He has now returned to state politics.

Dr Abdullah was an active youth leader and was president of the Youth National Conference, the youth wing of National Conference, before his elevation as president of the ruling National Conference. He came into the lime light of politics during the Holy Relic agitation of 1963.

He is a widely travelled man and has lived in United Kingdom for 12 years. He has visited the East European



Dr. Farooq Abdullah

countries including the USSR as also Japan, Hongkong, Thailand, Singapore, Iraq, Saudi Arabia, Yemen, Kenya and Egypt.

Dr Farooq Abdullah is M.B.B.S. from the Medical College at Jaipur. He is married and has three daughters and one son.

The Sher-e-Kashmir Medical Institute, Soura, Srinagar, of which he was director is now nearing completion. His hobbies are golf and photography.

mix without regard to Parliament's right to grant or deny Indian citizenship to foreign nationals. While late Sheikh was capable of securing popular support on matters which were contrary to his declared stand, new National Conference leadership can resort to populism only at the risk of fanning communalism to the advantage of Jamaat and other extremist forces. Developments such as these in Kashmir valley are bound to have a reaction in Jammu, which is pro-integration insofar as the state's relations with the rest of the country are concerned. Sharpening of these divergent attitudes could result in the state's disintegration.

Sheikh's grave adjoining the famous Ratbal shrine which was skilfully used by him as his most important political base, is certain to be transformed into an important institution. A memorial to the lighting material to be supplied by the Iraqi Government is to be built there in honour of the martyr. While this will ensure that late Sheikh's presence continues to be felt, it also has the danger of providing a refuge for their inefficiency. Sheikh's memory ought to be utilised for courageous steps like that of eliminating food subsidy which late Kashmir leader took immediately after his return to power. Dr Farooq himself is committed to end corruption in which, as he himself said recently, some National Conference ministers themselves were involved. He is committed to give a cleaner image to his government and party and he should be expected to draw the required strength from the monument that is being built around his father's grave to put his professions into practice. It will be an exaggeration to say that Kashmiris will look up to Dr Farooq with the hope that he will acquire his father's courage to face New Delhi. How well does he meet this expectation and with what consequences will be known only in the next election if he is pitted against Congress (I) as his father was in June 1977. Meanwhile, he has started on a firm footing by dissolving Sheikh's cabinet and forming a smaller ministry of his own.

One recalls with interest the slogan of "our country, my country: Kashmir country, Kashmir country", coined by Dr Farooq in the historic June 1977 state assembly election.

AS I SEE IT

Undermining public financial institutions

THERE seems to be a concerted move by some persons in the Union Finance Ministry to destroy the viability and credibility of the all-India financial institutions. Otherwise there is no explanation for the manner in which heads of public sector financial institutions of long experience and proven integrity are being humiliated one after the other. It started with the removal of Mr R.K. Talwar from the chairmanship of State Bank of India during the days of the emergency. The latest such instance is the removal of Mr J.R. Joshi from the position of chairman of Life Insurance Corporation of India. In between Mr R.K. Daruwalla was removed from the position of chairman of General Insurance Corporation. The point is that no charge has been given out in justification of the action of the Finance Ministry. At any rate the ministry could not put forward such an explanation in so far as in a few cases the removal came after the government itself had reiterated confidence in the individuals removed. Mr Talwar was removed after he had been reappointed chairman of State Bank of India and Mr Joshi has been removed after he was given an extension.

What is at stake is not the government's right to have persons of its choice to run public sector financial organisations but the very survival of these institutions as useful instruments of public action. In a situation, where competitors are ruled out by the legal framework in which these financial institutions operate, they may still remain indispensable to the society at large; but there is no doubt about the severe erosion they suffer in efficiency and effectiveness because of the continued undermining of the persons at the top.

The question must be asked, in the context of the LIC chief's removal, if the government is justified in humiliating persons, who have proven re-

cords of integrity and efficiency at the time of their retirement. Mr Joshi had retired, yet he was not allowed to go but was asked to continue for two months. But, having done so, the Finance Ministry did not allow him to stay and, within ten days of granting the extension, asked him to leave as soon as possible which means immediately. Not that the government had nominated a new chairman. No. Mr Joshi was asked to hand over charge to one of the managing directors of LIC, Mr A.S. Gupta, who was asked to look after the work of the chairman. The inference given rise to by these developments would be that the interests of LIC and the nation were in jeopardy if Mr Joshi continued even for a day! Certainly there was no warrant to justify such an inference. The LIC employees have come out strongly in protest against Mr Joshi's removal, lauding his integrity and efficiency. This is the greatest tribute the head of an organisation can ever hope to get at the time of his retirement. Ironically enough, Mr Joshi had to endure a public disgrace for the world to come to know of his sterling qualities!

There is a further point. Mr Joshi is 56 — short of the age of retirement. Had he not been appointed chairman he would have continued till he attained the age of 58. Yet he has to go. The question is why should the government itself push persons to a situation of premature involuntary retirement?

The Union Finance Minister, Mr Pranab Mukherjee, is clearly called upon to provide a public explanation for this extraordinarily gratuitous insult meted out to Mr Joshi, who was a public servant of long service. To the extent that decisions on the appointment of chiefs of public sector organisations need the Prime Minister's clearance, Mrs Indira Gandhi has also a distinct responsibility to give her views.

Subhash Chandra Sarker

SPECIAL REPORTS

Inadequate coal supply hits Gujarat industries

AHMEDABAD

IN spite of improvement in the availability of coal at pit-heads of mines, supply of coal to consumer industries in Gujarat has been uneven and inadequate all along. As against the total projected coal requirement of Gujarat of the order of 11 million tonnes annually, the total despatches actually being received annually have been 6.6 million tonnes, which is about 60 per cent of the total requirements of the State.

The imbalance becomes all the more glaring and heavily weighted against the private sector, if the issue is considered on the basis of the fact that, while the power houses in the State get about 80 per cent of their coal linkage, industries get only 40 per cent of their requirements.

Industry circles in Gujarat feel that the paradoxical situation of having to spend enormous amount of foreign exchange on diesel for hauling coal by road could have been avoided if the Union ministries of energy and railways had become aware of the irony behind usage of diesel for transporting coal, a fuel of lower calorific value, and stepped up the rate of coal haulage by railways.

Besides the Gujarat Chamber of

Commerce and Industry and other representative bodies of trade, the Gujarat Government has been raising the issue at all the forums available to it, so as to convince the Centre about the drawbacks involved. While the Gujarat Chief Minister, Mr Madhavsingh Solanki, raised this issue at the state power ministers' meeting in Delhi in the last week of August, 1982, the president of the Gujarat Chamber, Mr Baldevbhai Dosabhai Patel, spoke vehemently against making the industries economically sick by forcing them to resort to costly road haulage.

Apart from inadequate and irregular supply of coal, the problems of transit shortage on receipt of coal, deterioration in quality, and extra financial burden on account of road haulage is affecting industrial production in Gujarat. The estimated total annual loss to industry on account of these factors has been put at a staggering Rs 44 crores annually. In addition to this irritant, diversion of coal rakes and inordinate delay involved in receipt of loading advice and railway receipts (RR) from collieries have been agitating the minds of not only private sector industries, but even the public sector power houses in Gujarat.

Besides, the hike in price and freight

of coal to the extent of 144 per cent, 95 per cent respectively during the three years has greatly enhanced the cost of energy input of industries power houses placing a heavy burden on them. An estimate of the loss sustained by the industry during the past one

Bombay spot exchange rates of currencies as on 13-9-1982

(Currency units per Rs 100)			
Country	Currency	Selling T.T.D.	Buying T.T.Clean
Australia	A. \$	10.670	10.88
Austria	A. Schilling	179.00	183.2
Belgium	B. Franc	482.00	504.0
Canada	C. \$	12.670	12.90
Denmark	D. Kroner	91.25	93.2
France	Franc	72.80	74.2
Hong Kong	H. K. \$	62.60	63.8
Italy	Lira	14454	1474
Japan	Yen	2691	273
Malaysia	M. \$	24.10	24.5
Netherlands	Guilder	28.23	28.7
Norway	N. Kroner	71.10	72.3
Singapore	S. \$	22.14	22.5
Sweden	S. Kroner	63.90	65.1
Switzerland	S. Franc	21.96	22.3
UK	£	6.0360	6.080
USA	\$	10.260	10.36
West Germany	D. M.	25.76	26.2

Source: Syndicate Bank, International Division Central Office, Bombay 21.

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

Item	Quality	Rs per kg				Percentage variation on 10-9-1982 over		
		Sept. 10 1982	Sept. 3 1982	Aug. 13 1982	Sept. 11 1981	a week ago	a month ago	a year ago
Rice	Average	5.00	5.00	5.00	3.60	—	—	38.9
Wheat	Average	4.25	4.25	4.25	3.50	—	—	21.4
Jowar	Average	3.00	3.00	3.00	2.30	—	—	30.4
Bajra	Average	3.00	3.00	3.00	2.30	—	—	30.4
Gram dal	Average	6.00	6.00	6.00	6.50	—	—	-7.7
Tur dal	Average	7.00	7.50	7.75	6.80	-6.7	-9.7	2.9
Onions	Average	1.50	1.50	1.50	1.60	—	—	-6.3
Potatoes	Average	2.50	2.50	2.50	2.00	—	—	25.0
Milk per litre	Buffalo	6.00	6.00	6.40	6.00	—	-6.3	—
Tea	Average	26.00	26.00	26.00	23.00	—	—	13.00
Coffee	Average	20.00	20.00	20.00	17.50	—	—	14.3
Kerosene per litre	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm)	—	1.70	1.70	1.70	1.55	—	—	9.7
Sugar	Average	4.60	4.80	5.40	6.00	-4.2	-14.8	-23.3
Gur	Average	5.25	5.50	6.00	6.60	-4.5	-12.5	-20.5
Groundnut oil	Average	14.80	14.80	15.50	16.00	—	-4.5	-7.5
Vanaspati	Average	16.50	16.50	17.00	15.00	—	-2.9	10.0
Toilet soap	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200) pages)	—	2.50	2.50	2.50	2.50	—	—	—

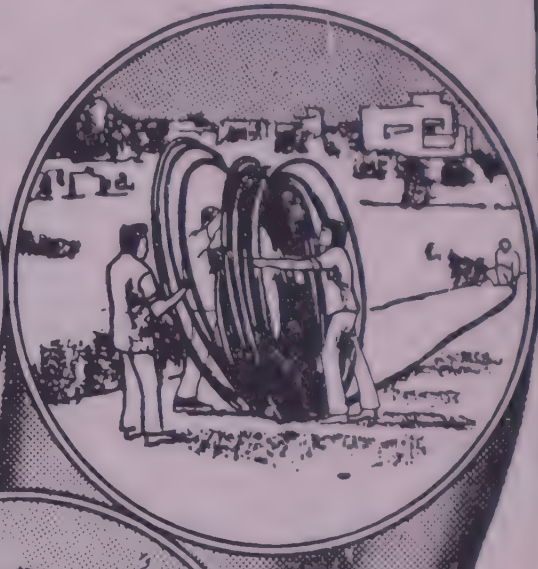
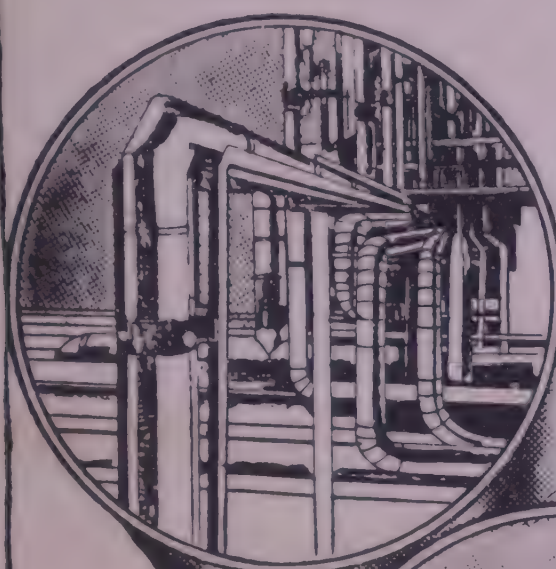
worked out by the Gujarat Chamber, as follows: Loss on account of transit shortage of coal Rs 26.40 crores; loss on account of quality deterioration Rs 6.5 crores; and loss due to extra cost of transporting coal by roadways Rs 1 crores.

What is significant is the industry as well as State Government's fears that whether the Central agencies like the railways and coal mines would be able to meet the State's projected demands during the next one or two decades. For meeting the needs of new thermal power stations and industries to be set up during the Sixth and Seventh Plan periods, it is feared that the existing railway infrastructure would not be able to cope with the projected additional load.

(continued on page 453)

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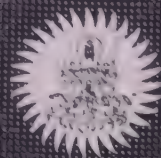
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Exports: A challenging decade

By SHIVRAJ PATIL, Union Minister for Commerce

INDIA'S exports have shown a much greater buoyancy in the 70's as compared to the 50's and 60's in spite of the fact that the growth in world trade in the 70's has been lower than in the 60's. It is estimated that for the decade of 70's as a whole, India's exports in quantum terms grew at an annual rate of 7.4 per cent and in the second half of the 70's this growth rate exceeded 8 per cent per annum. The exports to GNP ratio also showed a steady increase over the years.

India has been able to adjust herself very effectively to the changing international trading environment. This has been possible primarily due to our diversified export structure. The share of manufactures in India's exports in value terms has been around 59 per cent and in the second half of the 70's our exports of manufactured products exceeded the growth rate in the world trade of manufactures.

The article is based on a speech delivered by the Commerce Minister at a workshop organised by Assocham on India's foreign trade.

There has been a marginal improvement in our balance of trade position in 1981-82 as compared to 1980-81. According to available information India's trade deficit in 1981-82 provisionally stands at Rs.5713.82 crores as compared to Rs.5813.20 crores in 1980-81. This has been possible due to greater export buoyancy and slower growth rate in imports. India's overall exports in 1981-82 provisionally stand at Rs.7557.47 crores as compared to Rs.6719.71 crores in 1980-81 showing a rise of about 13.3 per cent as compared to only 3.9 per cent in the previous year. Our imports in 1981-82 have been provisionally put at Rs.13,271.29 crores as compared to Rs.12,533.91 crores, show-

ing a rise of 9.63 per cent as compared to 38.8 per cent in 1980-81.

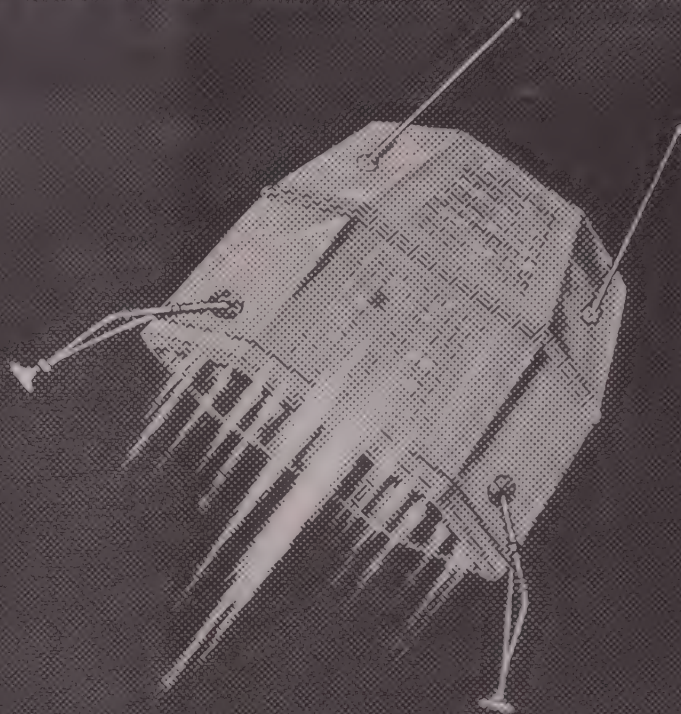
Commodity groups

Based on the data compiled by export promotion councils/commodity boards/state trading organisations etc., it is observed that the export performance during 1981-82 in relation to the performance in 1980-81 has been quite impressive in respect of certain commodity groups. Agricultural and allied products increased by 32 per cent from Rs.1,262 crores in 1980-81 to Rs.1,665 crores in 1981-82. Leather, sports goods and gems and jewellery together increased by 26 per cent from Rs.998 crores to Rs.1,255 crores. Engineering goods

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increased by about 18 per cent from Rs.900 crores to Rs.1,060 crores. In the case of ores and minerals, the increase was 18 per cent from Rs.373 crores to Rs.439 crores and textiles including jute and coir increased by 12 per cent from Rs.1,409 crores to Rs.1,571 crores.

Exports suffered a setback in the case of plantation group with a decline of about 13 per cent from Rs.685 crores in 1980-81 to Rs.595 crores in 1981-82. The important items of plantation whose exports witnessed decline during 1981-82 include tea, coffee and cardamom. In the textile group the items of decline included cotton textiles excluding garments, jute manufactures and man-made textiles. The deterioration in the exports of items of plantations and spices has been mainly on account of fall in the international prices. A sizable decline in the exports of jute manufactures has been the outcome of severe competition from both natural as well as synthetic jute goods and the resultant fall in their world prices. Although exports of garments have done well, the performance of other cotton textiles was not satisfactory on account of lack of modernisation of plant and machinery *vis-a-vis* exports from other countries. There was also decline in raw cotton and HPS groundnuts.

Diversification of exports

We have been able to diversify our export basket through a number of export promotion measures in the last two years. These include removal of licensing constraints on export production, setting up of 100 per cent export oriented units, establishment of EXIM bank, simplification and streamlining of procedures and extension of fiscal concession to exporters. The import policy has also been pragmatized in order to upgrade our technology and also to supply essential inputs to the domestic industry so that higher level of production could be achieved in order to generate export surpluses at competitive prices. The institutional infrastructure e.g., export promotion councils, commodity boards, trade fairs and exhibitions, commercial representatives and public sector institutions such as ECGC, TDA, STC etc. are also being strengthened to generate exports.

The Task Force on Project Exports has made a number of important suggestions to boost foreign exchange earnings. This is an area where vast export potential exists and a high-powered secretaries' panel has been appointed by the government for speedy implementation of these recommendations. It is hoped that our exports from this sector will go up considerably once the recommendations are implemented.

Sixth Plan target

The Sixth Five Year Plan has placed the export target of 9 per cent per annum in real terms for the plan period. However, after a careful reassessment of India's medium and long term balance of payments situation, the possibilities of bilateral and multilateral aid, commercial borrowings for import requirements and debit service charges, it has been felt that India's growth in exports will have to be increased further. The export target for 1982-83 has been tentatively fixed at Rs.8,650 crores which is about 15 per cent more than our performance in 1981-82. All possible efforts will have to be made to achieve higher growth rates in the future.

Our export promotion strategy will have to be geared up to meet the challenges of 80's which will indeed be a much more difficult decade as compared to the 60's and 70's. The international economic environment is progressively becoming adverse to the developing countries due to the prevailing recession in the major international markets and protectionist policies pursued by the industrialised nations. The growth in the volume of world production came down to 1 per cent in 1980 as compared to 3.5 per cent in 1979. In respect of OECD countries the growth rate of GNP was 1.3 per cent in 1980 and is estimated at 1.25 per cent in 1981. The projections show that the growth rate of OECD may show a small recovery to 2 per cent in 1982. The volume of world trade which increased by 6.5 per cent in 1979 increased by only 1 per cent in 1980 and remained stagnant in 1981. The impact has been more severe on agricultural items as compared to manufactures and minerals.

Export assisted growth

In view of international economic

situation and India's adverse balance of payments position it is imperative that significant growth rates will have to be achieved in our exports. This would also help us to allocate our resources efficiently and meet our debt service requirements. An export assisted growth would help us achieve greater degree of economic stability since exports would be supplementing the home market, which is essential for the creation of an industrial base. These exports will have to come from our national enterprises and necessary steps are being taken to make our products competitive in the world markets by liberalising imports of inputs and technology. Protection will now have to be given only to the efficient indigenous units. Much more remains to be done to improve the quality of our products. It is also essential that a forceful marketing strategy be adopted to tap the highly competitive export markets and it is here that our efforts would now have to be diverted. All possible measures are being taken to support our export promotion efforts in order to achieve higher growth rates in future.

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Export strategy for the 1980's

By P. L. TANDON

THE need for a much greater orientation in this decade should be seen in two distinct perspectives, immediate and the long term.

While India's trade balance has long been adverse, except in 1976-77, it has been manageable in the past. Of late it has been rising in a manner that gives cause for much concern.

Table 1 : India's Trade Balance and Reserves

Year	Exports	Imports	Trade	Reserves
			Rs. crores	Balance
1960-61	642	1,122	- 480	186
1965-66	806	1,409	- 603	182
1970-71	1,535	1,634	- 99	438
1975-76	4,043	5,265	- 1,222	1,492
1976-77	5,146	5,074	+ 72	2,863
1979-80	5,999	8,231	- 2,232	5,164
1980-81	6,709	12,435	- 5,726	4,822
1981-82	7,358	13,110	- 5,752	3,354
(Estimate)				

Foreign exchange reserves that rose to Rs 5,220 crores in 1978-79 declined to Rs 3,338 crores on June 25, 1982. The economy thus faces a severely strained balance of payments position, stemming principally from the sharp rise in oil imports bill without a commensurate rise in exports.

Because of India's long post-war history of import substitution, there is little scope left for cutting down imports, which are already reduced to the bare essentials - ignoring the recent relaxation. No doubt further technological upgrading of the economy will produce some import savings, but it will also create new import demands. Export expansion is therefore essential not only for the balance of payments but for the import needs of growth as well.

Mr Tandon is president of the board of governors of the National Council of Applied Economic Research. He headed recently a committee, appointed by the Government of India, to suggest an export policy for the 1980s.

Of the main strategies for exports' growth, dealt at length in the Exports Committee's Report, 1981, I would like to highlight a few.

Technology

We have talked perhaps somewhat loosely about "appropriate technology". Appropriateness of technology, while of some importance at home, may have less or no relevance in an export market; although even for the home market we should re-examine its appropriateness in the context of time and technology. An example is the motor car, where we have just wakened up to the fact that what we are making by way of a car is appropriate neither for the home markets nor abroad - it is just a 30 year old technology, which is wasteful of both metal and fuel. Cars of this size today have less weight, more power and consumed almost half the fuel. If we had the current technology, it could have been appropriate to make a small, low horse power, economical car,

with efficiencies of modern models consuming less metal, alloys and fuel, but with the current technology in hand we could have made and exported a variety of more sophisticated models to suit export needs. Another example is railway wagons and equipment. Where we were able to export successfully 15 years ago, when our technology was of the track speeds of around 100-150 km an hour, today we are unable to do so because track speeds have moved to 150-200 km. and beyond, but we have not. Similarly we are experiencing difficulties in textile industry, where we oversell readymade garments but neglect the broadloom products, for which there is much demand.

It should not be overlooked that a developing country will want to buy the latest in performance efficiency and economy, though suited naturally to its ambient conditions; there is no merit in its buying an older generation product like our car that is outdated and a drain on fuel and maintenance costs. Our

Table 2 Imports - India

	1960-61		1970-71		1978-79		1980-81	
	Rs. crores	%	Rs. crores	%	Rs. crores	%	Rs. crores	%
Essential	93	8.69	244	15.02	1,913	42.23	6,779	64.56
Petroleum and products	69	6.45	136	8.37	1,220	26.93	5,000	47.62
Vegetable oils	4	0.37	23	1.42	423	9.34	1,000	9.52
Pharmaceuticals	10	0.93	24	1.48	59	1.30	100	0.95
Fertilisers	10	0.94	61	3.75	211	4.66	679	6.47
Exports-Linked	307	28.69	487	29.97	895	19.76	NA	NA
Non-ferrous	46	4.30	120	7.38	146	3.23	NA	NA
Precious stones	1	0.09	25	1.54	72	1.59	NA	NA
Iron and steel	120	11.22	147	9.05	251	5.54	NA	NA
Textile fibre	101	9.44	127	7.82	198	4.37	NA	NA
Chemicals	39	3.64	68	4.18	228	5.03	NA	NA
Capital Goods	326	30.47	384	23.63	785	17.33	NA	NA
General machinery	201	18.79	257	15.81	516	11.39	NA	NA
Electric machinery	56	5.23	69	4.25	99	2.19	NA	NA
Transport equipment	69	6.54	58	3.57	170	3.75	NA	NA
Rest	344	32.15	510	31.38	937	20.68	NA	NA
Food	177	16.54	272	16.74	165	3.64	NA	NA
Paper and paper board	12	1.12	25	1.54	103	2.27	NA	NA
Cement	Neg.		Neg.		69	1.52	NA	NA
Others	155	14.49	213	13.10	600	13.25	NA	NA
Total Imports	1,070	100.00	1,625	100.00	4,530	100.00	11,200	100.00

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trucks, on the other hand, sell well in the neighbouring countries because they do offer an appropriate technology. We have somehow made appropriate synonymous with the outdated!

There is growing feeling, that bears careful examination, that where in the 1950's and 1960's our technology gap with the world was narrowing, today it is widening. There are many things we make today that have hardly progressed in technology since we started making them 20 years or more ago. This gap we should close, at least in the export sector, and import technology from wherever it is more advanced than ours. This will need a two-pronged initiative.

First, in deciding priorities for allocation of resources in domestic research and development activity to meet the needs of our export sector, and such R&D must be made accountable for results in creating technology that is exportable. At the same time, like the Japanese, we should import technology where it is ahead of ours, adopt it, adapt it and improve it.

Second, policies and procedures for technology imports should be considerably liberalised. For instance, imports of technology, as long as they are effected without foreign equity, should be an Open General Licence (OGL). Further, the OGL facilities for technology import should be extended only to those units who have in-house research and development facilities. While for the medium and small scale industry there should be created technology transfer facilities through franchising with large firms, in which the public sector has a role.

Transnationalisation

The traditional multinational forms of investment, production, banking and trade, are undergoing a process of transnationalisation into new forms, in joint ventures and unpackaging, in which two or more countries pool their comparative advantage to cooperate in financing, production and management in their own and in third countries. It can take one of the many new forms of consortium, joint ventures, turnkey projects, management contracts, subsidiaries, etc.

India will continue for long to offer some comparative international advantage, mainly of cheaper costs of production

and management. If Indian wage and costs ever reach the developed partners level, thus neutralising the initial benefits, India would still have the advantages of research and development, raw materials, manpower and proximity to the Asian markets. And India has besides the most important advantage, one that only China possesses, of a large home market, the second most populous and potential. India has enough experience with multinational investment by foreign firms, and now with its own multinationals abroad, to enter the transnational relationships with confidence, but it will need some active support from government because in the changing international scene decision-making has to display breadth, vision and speed.

Transnational banking

Multinational banking, relying on banking business within the host country and its foreign trade is now moving into transnational banking, in forms of wholesale, merchant and offshore banking. Unlike multinational banking, it does not depend upon internal local business of attracting deposits or extending credit, but relies upon international business between the host country and abroad or between third countries.

Some Indian banks with branches abroad have already begun operating outside the traditional ethnic boundaries in seeking funds and deploying their resources. They have been successfully building up working connections with the larger multinational banks and participating in international syndications. Possessing excellent management talent and having a tradition of banking in a variety of environments, Indian banks could well expand the scope and complexity of their transactional operations and perform a pioneering role in seeking out opportunities for Indian business, whether in the form of merchandise exports or joint ventures abroad. It is time we went further and formed an Offshore Banking Unit (OBU) in Bombay.

Role of export processing zones

The phenomenon of Export Processing Zones was an extension of the earlier concept of Free Trade Zones, where goods could be imported and processed free of duty, which was paid as and when they were despatched to the hinterland

market or shipped abroad. Free zones work like a classical form of liberal and free economy with the advantage of both freedom and planning.

India has started two zones — a general production zone at Kandla in 1965 to help develop an industrially backward region, as an alternative to the part of Karachi, another at Santa Cruz in 1974 to take advantage of the international electronics boom which had attracted many similar profitable zones in Asia. A committee has been examining their operations and has recommended expanding the concept by opening more zones and encouraging the 100 per cent export oriented units, as also permitting new kind of zones like a dry dock, fruits, meat, vegetables and flowers.

Infrastructure abroad

Our missions abroad have shown a remarkable improvement in quality, size and perceptions of foreign trade in the past decade. They often enough lack much guidance or quick responses from their home bases, with the added weakness of a lack of backup support from research, information and advice. There is too the multiplicity of uncoordinated agencies that missions have to deal with abroad. Spread over London and Common Market there are the economic, commercial and supply units of our missions, State Trading Corporation, Trade Development Authority, India Investment Centre, Steel Authority, Hindustan Aeronautics, Heavy Engineering Corporation, Hindustan Machine Tools, Projects and Engineering Corporation, Bharat Heavy Electricals, Export Promotion Councils, Trade Centre, Carpet Centre, Tea Board, Commodity Boards, and possibly some others. While consulting each other informally they do not work in a unison in so far as Indian exporters and foreign importers are concerned.

The following three issues deserve consideration.

— The nature of representation at the missions, whether they should be manned by one service — as at present by the Indian Foreign Service, with some seconded from the other services — or an inter-service basis, or by a new commercial service, is a matter for government's consideration. There are a number of different models in this regard which may be studied.

— We should review our present trading infrastructure abroad and knit their effort into a grid structure, modern in its operations and specialist in its approach.

— Any structural and qualitative improvements in our institutional infrastructure abroad must be supported by the corresponding long-advocated central export information service centre abroad to which exporters in India and exporters and our institutions abroad can turn for the latest information and advice.

Exportable surplus

Exportable surpluses do not always arise automatically. Sometimes when there is a shortfall in production, there tends to be a temporary conflict between domestic consumption and exports. Since export markets once lost are not easy to regain, a part of the production must always be made available to earn the needed foreign exchange through, if necessary, temporary restraints on home consumption. Our exports have suffered far too much from stop-go, which always in effect results in distressed selling when we do

return to a market. Sugar, cement, steel are examples.

Export investment

In order to encourage orientation of production, the investor must have the assurance that export policies shall be reasonably stable and that production for exports would be advantageous to the producer. To this end, export policies should enjoy a degree of stability of at least over the period of the next plan.

Small manufacturers/exporters

Small manufacturers' and exporters' capital needs, both for the fixed and working funds, should be specially met to avoid their recourse to high cost private borrowings. In view of this

— A window should be opened for small scale sectors for medium term finances in the new EXIM Bank, while for short term lending the Bank can offer refinancing facilities through exporters commercial bank.

— EXIM Bank may have a special scheme for helping small scale sector to

give an access to international short term capital market.

— Credit to small exporters may be considered on softer terms.

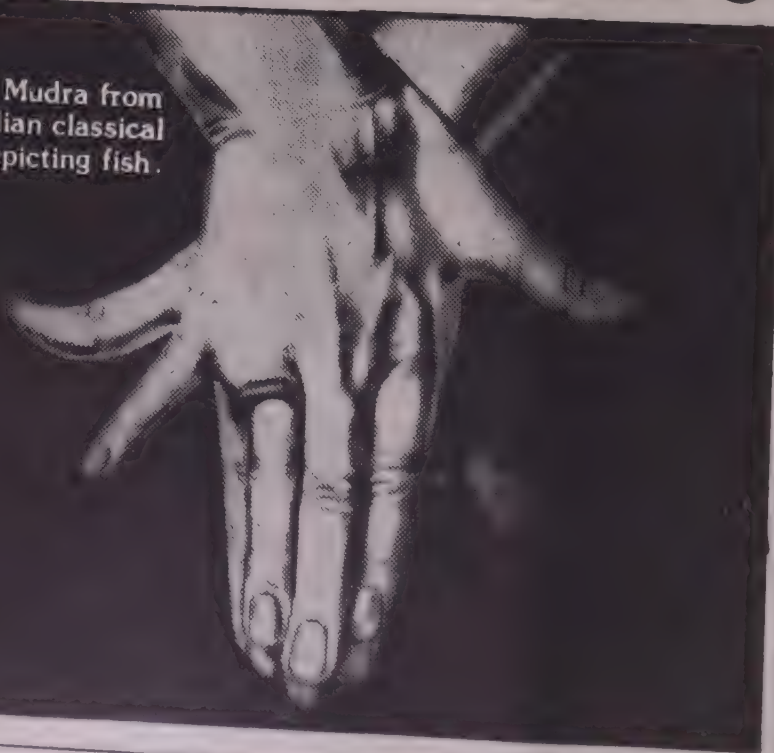
Export management

Finally and in the ultimate analysis much will depend upon the administration. In the past exports have been directed instead of managed. Whenever there is a slippage, there is at best a management by crisis. What we need for exports is long term planning, implementation and monitoring through the instrument of a national export plan for one and three years. Having agreed upon it all support by way of inputs and assistance should be assured to exporting industries. There should be a quarterly appraisal and any shortfalls should be remedied before they accumulate over the year.

The plan should also make use of the Indian and foreign multinationals and export houses, who with their international contacts should be asked to prepare individual plans, which, if they are benefit-costwise acceptable, should be supported in their performance.

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New dimensions in export credit

By KALYAN BANERJI

LARGE countries make small exporters. Relative importance of exports in GNP is a measure of foreign trade dependency of a country. This measure in 1979, for the USA, the USSR, China, Brazil was 17 per cent, 11 per cent, 14 per cent and 17 per cent respectively. Compare this pattern with the pattern obtaining in South Korea, the Phillipines, Bangladesh and Pakistan. The respective percentage in 1979 was, 59, 38, 28, 29. In the case of India, exports as a share of GNP, in 1979, worked out to 14 per cent. What emerges from the above juxtaposition is that India's large domestic market has been a better business proposition than overseas markets.

Current commitment, regardless of the immediate causes, is a recognition that India is in a position to enter a phase of outward looking market growth as compared to inward looking market growth. Though one need not be at the expense of the other, there can be a difference in emphasis when exports account for a small share of GNP. Inward looking growth refers to import substitution process and outward looking growth refers to growth in exports. Import liberalisation is a policy step in the transition from inward looking growth to outward looking growth. India has introduced selective import liberalisation, after decades of import-substitution policy.

Role of credit

It must be recognised that India is making efforts to enlarge exports when the global market place is beset with a recession, severe competition from established exporting countries, increasing trade barriers and decline in payment ability of scores of importing countries. Cost of credit is an important factor that will give the Indian exporter a competitive edge to continue his hold in tradi-

tional markets and enable him to penetrate new markets. Supply and price of export credit are, therefore, likely to carry a larger weight in the current circumstances than in conditions of an upswing in world economy.

Supply of export credit

An exporter either sells on cash or credit terms. In both cases, need is for pre-shipment and post-shipment credit. When sale is on credit extending beyond one year, additional need is for term or deferred export credit. Consider pre-shipment and post-shipment credit quantum that appears necessary to support enlarged exports. As at the end of June 1980, pre-shipment and post-shipment credit, together, amounted to Rs.1504 crores. This accounted for eight per cent of gross bank credit. As a share of gross bank credit, export credit in June, 1980 was lower than in June 1977.

There are several estimates of export growth for 1982-83. One projection is that exports for 1982-83, would be around Rs.8700 crores. The requirements of credit is estimated around Rs.2300 crores excluding deferred credit. This would amount to nearly 14 per cent of annual growth in bank credit. Doubts about adequate supply of export credit are, therefore, not unwarranted. There is already considerable survey evidence that pre-shipment export credit is not forthcoming from the banking system. Add to this, the recessive signs in world trade and payment tightness amongst many importing countries. The likelihood of buyers asking for longer credit terms is indeed very strong and well evidenced from trends perceived from the past year.

The question that arises is whether commercial banks would be motivated to deploy the additional credit that exports will want to attract. Apart from policy factors influencing supply of credit for exports, there is the issue of interest rate. Pre-shipment credit can cost 12.50 to 15

per cent depending upon period upto 365 days. Post-shipment credit costs 12.50 per cent. In the context of structure of interest rates for bank lending, export credit cost bears likeness to cost of credit for agriculture, road transport operators, retail trade advances. However, allocation of loanable funds for exports is not subject to administrative directions for monetary policy maker. In other words, exports are not treated as a priority sector.

In lending to exports, banks are therefore likely to be influenced by the return on loans as compared to trade and commercial advances. Whilst, it stands to reason that besides interest earnings on export credit, there are fee based and exchange earnings. These aspects tend to be lost in discussions on earnings related to export credit. Be that as it may, experience is that given a choice between lending to commercial sectors, outside the classification of priority sector, and export sector, discretion tends to favour the former. This is all the more pronounced where export credit exceeding a term of one year is concerned. In such credit commercial banks are permitted to charge only 8.65 per cent, which is rather a low rate, by all considerations.

Role of Exim Bank

In the area of export credit, the terms of payment Indian exporters can offer to buyers will play an increasingly crucial role. Recessive tendencies in world markets as well as payment problems in importing countries, are factors weighing on credit terms that exporters will need to offer. There is an additional factor. The share of manufactured goods, especially engineering goods in total exports, has risen and is expected to rise further. This is part of the link between industrialisation and exports. The significance for export credit is that, increasingly, the financing package as distinct from mere cost of credit, will acquire importance. It is in this area that the

Mr. Banerji is Executive Director of Export-Import Bank of India.

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Export-Import Bank of India (Exim Bank) has a major role to play.

By an Act of Parliament, Exim Bank was established on January 1, 1982. It is wholly owned by the Union Government of India. It has an authorised capital of Rs.200 crores, which can go up to Rs.500 crores. Paid up capital contributed by the government, stands currently at Rs.75 crores. A soft loan of Rs.20 crores, for thirty years has been extended to it by the government. Additionally, the bank can borrow from the Reserve Bank of India, through issue of bonds, by raising public deposits of minimum term exceeding one year. It can also raise foreign currency resources in overseas markets.

With the setting up of the Exim Bank, overall competitiveness of Indian manufactured exports can increase. This would largely depend upon the freedom the bank acquires to become the focal point for promoting and financing Indian exports. Whilst the commercial banks would remain the principal purveyor of short term export credit, the Exim Bank would be the principal supplier of term export credit. Between the commercial banks and the Exim Bank, co-financing scope is considerable. Any inflexibility could act as a falter in the institutional mechanism that is now in place. Whilst commercial banks will need to be motivated to participate in Exim Bank's term credit lendings, the vice versa should also be made possible. This would provide flexibility in the institutional mechanism, such that adequate supply of credit is maintained to exporters.

Term export credit

Lending to Exim Bank takes four forms. Supplier/buyer credits, refinancing, rediscounting constitute fund based lending. Issue of guarantees constitute non-fund based lending. Given its term character of resources, Exim Bank is well suited to carry the role of providing term export credit as the commercial banks are best suited to provide short term export credit. The lending rates of Exim Bank do not currently exceed 10.5 per cent, under any fund based loan programme. Given this concessional element in Exim Bank's lending, the quantum of low cost

resources will determine the Bank's ability to raise market priced resources and thereby augment the total supply of export credit. A source of strength for Exim Bank is its quasi bank character, capitalisation, and hence its ability to conduct merchant banking operations for Indian exporters. This is also a source for Exim Bank to augment its income which can make possible new forms of assistance to exporters in an intensely competitive global market place.

Counter trade

At this stage it may be worthwhile to gather the skeins of discussion. Export effort of India, has to be large, in the coming years. Export credit needs will be large to sustain the enlarged export support. There are three aspects to export credit. Cost of credit, term of credit, supply of credit are the bare bones in any financing package. If international competition in export financing techniques is to be met, considerable innovation and responses to market needs would be needed. In this context, three new dimensions in export credit, for India, merit brief discussion.

Counter trade in foreign trade is assuming increasing significance. Export to Indonesia, for illustration, is now possible only against undertaking to counter-purchase. This means that Indian exports to Indonesia will need to be offset by Indian purchases of Indonesian products. The most common forms of counter trade arrangements are barter, compensation and counter purchases. Each form has its own complexities. Should current economic conditions in world foreign trade continue, India will need to work out alternative plans in counter trade area, in respect of specific countries. In the absence of this, it is likely that Indian exporters will miss markets, transactions irretrievably.

A second dimension in export credit is acceptance financing. In this form of financing, an Indian exporter discounts his export bills with a bank in India. The latter in turn can rediscount the export bills and avoid getting out of funds. Maturities of bankers acceptances are limited by the period required to convert

the shipment into cash. Access to the international acceptance markets will mean several advantages for India. Besides enabling Indian banks turn round post-shipment credit many times in a year, it will circulate Indian name in the short term credit markets in international money centres. This could mean improved spreads both in the case of short term borrowings and in due course in the case of term borrowings in international capital markets.

Third dimension

A third dimension worth considering is international equipment leasing. Indian contractors have a fair size exposure in several countries through construction contracts and turnkey contracts. In the case of the former, particularly, export of Indian goods forms a negligible portion of a contract. This can be remedied to an extent by international equipment leasing. Leasing involves financing equipment acquisitions. A lease is evidenced by a contractual agreement between the owner of the equipment and the user of the equipment. In return for use of the equipment, the user pays the owner rent during the lease period. In the case of construction contracts, undertaken abroad, Indian leasing could substitute foreign sellers of equipment to Indian contractors. It is likely that this would augment income from projects and add to the country's foreign exchange inflow.

Whilst a large country need not be a large exporter, it is arguable that there is a linkage between industrialisation and exports. A large country, like India, when it wills it so can achieve greater success in the area of exports than many countries of small size. India has now the institutional framework for such achievement. A few policy options, when exercised, could clear the way.

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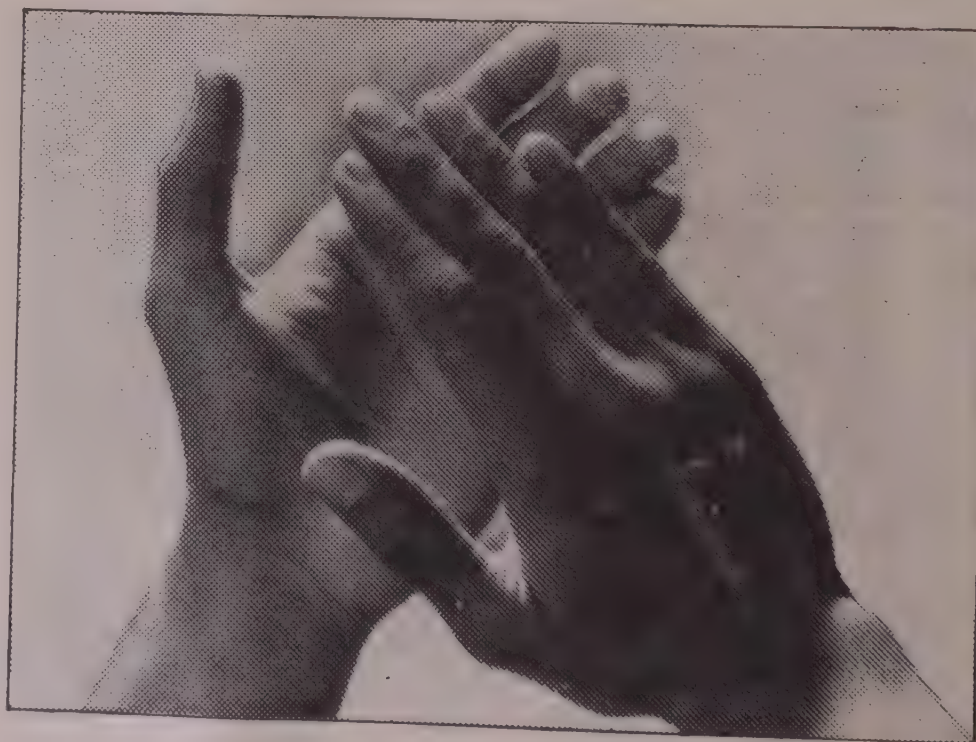
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Trading on credit terms

By D. D. SATHE

EXPORT trade has come to occupy a very prominent place in the economic development of a country. More so, in the Indian context due to worsening balance of payments position. The Export Credit & Guarantee Corporation set up in 1957 and which just completed its 25 years of existence has therefore to play an essential role in stepping up exports.

An important factor in international trade in recent years is the growing demand for sale on credit terms. A further development is the lengthening of credit periods. So if India has to be in the race for capturing export markets she should be able to offer matching credit terms of her competitors, besides adhering to quality, competitive price and delivery schedule.

Trading on credit terms with an unknown buyer situated beyond the frontiers is not all safe. There is also the risk of non-receipt of funds either due to war, political disturbances or due to difficulties of externalisation of funds owing to balance of payment difficulties. Export Credit & Guarantee Corporation, ECGC for short, protects Indian exporters against such losses.

Standard policies

Standard policies issued by ECGC offer protection to exporters to the extent of 90 per cent of loss either due to commercial or political risks. Commercial risks or risks of non-payment arise either due to default, insolvency or repudiation. Risks due to war, political disturbances and arising out of difficulties in externalisation of funds are termed political risks. The percentage of loss covered by ECGC is kept less than 100 as it is customary in credit insurance to make the insured share a small percentage of the risk. ECGC also expects a fair spread of risks insured. Therefore an exporter is required to insure all the shipments that

may be made by him during the validity of the policy.

Standard policies are of two types: Shipments policies and contracts policies. The former covers an exporter's risks from the date of shipment. On the other hand a contracts policy indemnifies him from the date of contract. An exporter has also the option to get cover for commercial and political risks together or political risks alone. Thus in all the standard policies take the form of four types depending upon whether the shipments are to be covered for comprehensive risks or political risks and/or from the date of shipment or from the date of contract. An exporter opts for a contracts policy when the goods to be exported are manufactured to the specifications of a buyer and in the event of refusal by him to accept them, resale prospects do not exist. Under the standard policies some procedural liberalisations have been effected for the benefit of small scale exporters. The extent of cover has been raised and other concessions have been conferred on them.

Credit insurance

When the corporation was set up in 1957, it was authorised by the government to provide credit insurance only for shipments made on credit terms not exceeding 180 days. However, with the product mix of exports undergoing a change with more and more emphasis being laid on the export of capital goods requiring credit terms of medium and long term, the need was felt to evolve a policy to that end. Thus 'Specific Policies' were introduced in 1959. But only in the latter half of sixties and seventies, when India emerged as a reliable exporter of capital goods, that these policies found more and more acceptance. Specific Policies can be of four types i) Specific Shipments (Comprehensive Risks) Policy to cover both commercial and political risks at the post-shipment stage ii) Specific Shipments (Political Risks) Policy to cover political risks at the post-shipment stage in cases where the buyer is an over-

seas government or payments are guaranteed by a government or by banks, or where shipments are made to associates iii) Specific Contracts (Comprehensive Risks) Policy iv) Specific Contracts (Political Risks) Policy. Contracts policies indemnify the exporter from the date of contract due to frustration and other risks.

There are two other special policies known as the 'Services Policy' and the 'Construction Works Policy'. The Services Policy is designed to protect Indian consultants and engineers against non-payment for services rendered in foreign countries. The construction works policy covers contracts entered into with overseas governments or other bodies to erect plant and execute civil engineering works. The percentage of cover available under construction works policy is 85 under policies issued to cover contracts with government buyers and 75 in case of private employers.

Construction boom

While in the sixties and early seventies, the corporation's business mainly derived from short term policies, the latter half of seventies saw a construction boom in the Middle East owing to a spurt in the oil prices. The period also saw the nascent economies of Africa going for industrialisation and their offtake of capital goods from India increased. India thus provided machinery for sugar and textile industry to countries as varied as Libya, Kenya, Sudan. The exports of vehicles, railway stock also started flowing into the markets of Uganda, Zaire etc. on deferred terms. Thus ECGC's specific policies and construction works policies were increasingly coveted by exporters in view of the fluctuating economies of these countries and the political upheavals which characterised them. Today a large share of the premium income of the corporation from policies derives from this sector of corporation's business.

Investment insurance

The seventies also saw Indian en-

Mr. Sathe is the Chairman of the Export Credit and Guarantee Corporation.

trepreneurs extending the horizon of their activity beyond their national borders. At present more than 100 such companies are operating abroad with Indian equity participation and management. These enterprises located as they are in areas and continents known for unstable economic and political conditions, will be exposed to the threat of war, expropriation and restriction on remittances or foreign exchange difficulties in the host countries, ECGC therefore evolved the Overseas Investment Insurance Policy to protect the Indian investment class from such unforeseen risks.

The risk in the export of capital goods on deferred terms is not restricted to commercial and political risks only. As the contracts are denominated in a foreign currency, usually convertible currency, the exporter is also exposed to risk of his realisation in rupees being less than what he expects them to be, due to exchange risk. Particularly in the present juncture when the currencies are prone to volatile fluctuations, the loss from depreciation of a currency against Rupee can be ruinous to an exporter. It could wipe out his profit margin and land him in loss. To guard against such losses, ECGC introduced in 1980 the Exchange Fluctuation Risk Cover, both at the bid, and contract stage. The cover will be available for receivables under a contract from more than one year and upto 15 years.

Problem of getting adequate finance for export production is one which every exporter faces, particularly when there are numerous demands made on the finance available from the various segments of the economy. Exporters need finance for the purpose of manufacturing, processing, packing etc. and when the goods are shipped they would require post-shipment finance. Certainly much of the financial needs has to come from the banking industry. ECGC therefore evolved guarantees to enable exporters to get liberal finance which would otherwise not come forth to them in the normal course. These guarantees issued to the banks removes the uncertainty from export finance and favourably influenced the banks in extending liberal finance.

The Packing Credit Guarantee enables banks to extend pre-shipment finance for

exporters to procure raw materials, process them, pack them and make them into product for ultimate export. Post-shipment guarantee as the name indicates, covers post-shipment finance given by banks through purchase, negotiation or discount of export bills or advances against such bills. A further innovation on these two guarantees has been the extension of whole turnover principle whereby a bank would offer all its business under one guarantee instead of taking separate guarantees for each exporter. The advantages accruing to banks under such a guarantee have been lower premium rate and greater percentage of cover.

Competitive prices

While selling in an international market, in order to be competitive, exporters would be required to sell at prices lesser than domestic prices and in some cases even at less than cost. The loss or the difference in profit margin is made good by the government by way of cash compensatory support after the goods are exported. As there is a time lag between the date of export and the disbursement, exporter would have to carry the loss for a considerable period. ECGC's Export Finance Guarantee enables banks to extend credit against such receivables. The benefits under the guarantee are extended to duty drawback receivables also. Export Production Finance Guarantee combines the features of packing credit guarantee and export finance guarantee with slight variations, prominent among them being that export production finance guarantee covers advances against receivables at the pre-shipment stage itself whereas export finance guarantee covers them after the goods are exported. The percentage of cover under export finance guarantee is 75 whereas under export production finance guarantee it is 66-2/3, unless the packing credit advances are covered under whole turnover packing credit guarantee, in which case it will be 75 per cent. But it is necessary to take a separate export production finance guarantee in that event.

Role of banks

Banks have to play a supplement role in addition to financing exports. Exporters will be required to furnish bank guarantees for due performance of export obligations to various export promotion

councils and other government bodies. Bank guarantees were also required to be given against advance payments received from buyers abroad and the necessity arose for banks to protect themselves against non-performance by Indian exporters. ECGC therefore evolved Export Performance Guarantee to safeguard banks from such risks. Gradual emergence of India as an exporter of capital goods and the construction boom in the wake of spurt in the oil prices in the Middle East led to Indian exporters getting huge civil and engineering contracts and export orders for capital goods. They were required to furnish bank guarantees first at the bid stage and later when they bagged the contracts. The guarantees to be submitted were for various segments of the contract and at various stages in execution. ECGC's export performance guarantees have been extensively made use of by the banks in supporting such projects.

Line credit insurance

Insurance for line of credit and buyer's credit are other schemes operated by the corporation. Financial institutions in India like those in other developed countries have started direct lending to buyers or financial institutions in developing countries for import of machinery and equipment. This kind of financing facilitates immediate payment to exporters and frees them from the fear of loss on account of overseas credit risks. ECGC's insurance schemes to cover lending under line of credit and buyer's credit safeguards the financial institutions from risks in such lending.

When a bank in India adds confirmation to letters of credit opened by banks abroad they are exposed to risks such as the opening bank failing to reimburse the amount paid to the exporter against his draft or the bank itself going insolvent, or due to political reasons the opening bank is constrained in transferring the funds. It is to protect Indian banks from such risks that ECGC evolved transfer guarantee.

Creditable performance

Now in the silver jubilee year, it would be worthwhile to trace the steps trodden by ECGC. In the year of its inception the value of shipments covered was a bare Rs.1.30 crores. In 1981 it

reached a whopping figure of Rs.1169.71 crores. An indicator of the growing supportive role that ECGC is playing can be measured from its business as a percentage of India's total exports. The percentage cover has been showing a steady increase and in 1981 it stood at 16. This rise is an indicator of the growing awareness of the exporters to the risks inherent in exporting to many exchange starved countries. Today many African countries face the problem of paying for their imports as their reserves have been depleted. Zambia and Zaire whose economies depend on the world prices for copper had a setback when copper prices nosedived. Some other African economies had similar upsets when prices for their exports of primary commodities ruled very low, and also due to poor off-take from developed economies reeling under the impact of recession. Many of these countries were assiduously cultivated by ECGC by its liberal underwriting policy even when many of the developed economies shied away in promoting exports to them.

ECGC's biggest achievements have been in the promotion of project and term exports. The number of term policies in force at the end of 1981 stood at

498 with maximum liability of Rs.2078.92 crores. There has been a steady increase in the number of such policies. From 148 in 1975 it rose to 348 in 1980. As at the end of June 1982, 570 such policies were in force with maximum liability of Rs.2941.04 crores. Equally impressive has been the number of export performance guarantees in force to back these projects. As at the end of 1981, 1033 guarantees were in force with maximum liability of Rs.468.43 crores. The number increased to 1258 at the end of June 82 with maximum liability of Rs.658.90 crores.

The value of advances covered under the various guarantees has also been increasing. From a bare Rs.0.01 crore in 1960 it jumped to Rs.207.93 crores in 1970 and to Rs.5228.04 crores in 1980. In 1981 it reached Rs.6199.39 crores.

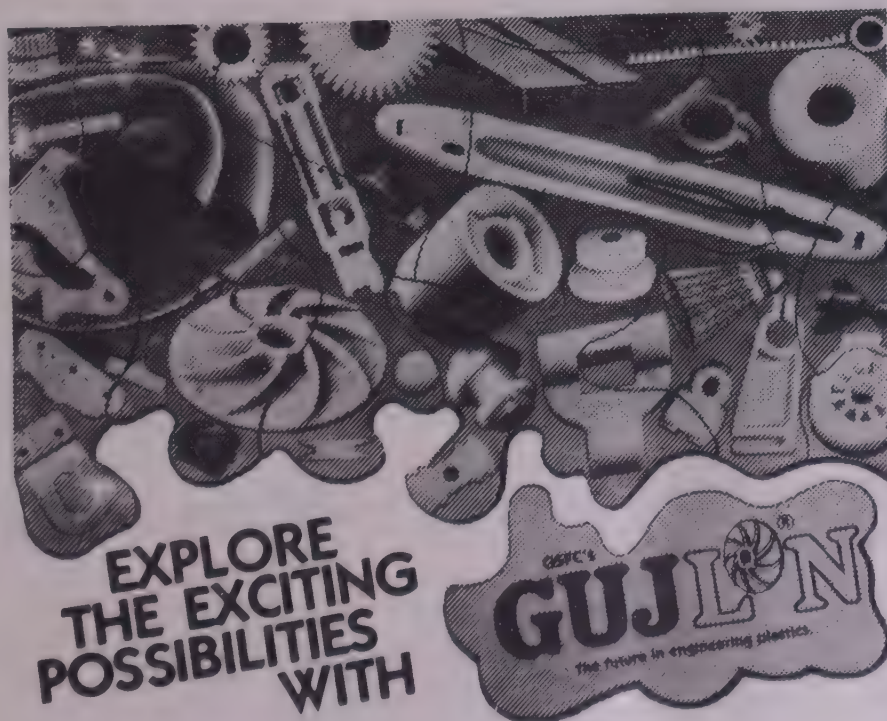
Claims paid

A barometer of any insurance organisation's efficiency should be judged by the amount of claims paid by it. In its bid to nurture difficult markets, ECGC has not shown unwillingness to come to the aid of the exporters. Value of claims paid under policies has been on the increase in the last four years. From Rs.180.83 lakhs in 1977 it reached Rs.981.98 lakhs in 1980. The year 1981 ended with claims

paid amounting to Rs.1614.76 lakhs. As stated earlier a number of transfer claims were paid in supporting exports to African economies with balance of payments difficulties.

Numerous demands are being made on the corporation. ECGC would like to become the focal point for dissemination of information on exports, exporters and buyers. With vast data in its repertoire, ECGC is suitably placed as a base for evolving a data bank. ECGC will be asked in future to take up assignments in areas hitherto uncharted.

Its expertise and its yearn for innovative schemes have earned laurels from other countries. Other developing countries are increasingly seeking its assistance in developing their own schemes of export credit insurance. ITC/UNCTAD have also been seeking ECGC's assistance in conducting courses for officials drawn from other developing countries. Even in the comity of the International Union of Credit and Investment Insurers (Berne Union), where ECGC is a member since inception, its signal role in export promotion has been appreciated and it is a fitting tribute to it by this august body that ECGC has once again been chosen to be represented in the Managing Committee in its Silver Jubilee Year.



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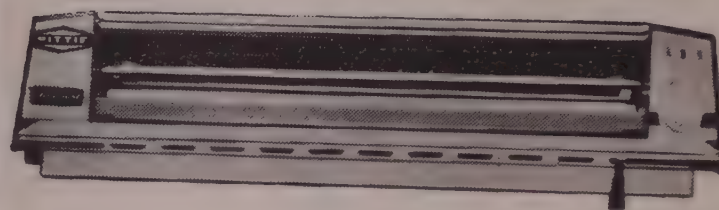


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Problems of export finance

By P. P. THAKURTA

THE balance of payments situation facing our country is under severe pressure and will continue to be so in the coming years. The imports at Rs.12,524 crores have far eclipsed the exports at Rs.6,711 crores, thus contributing to a staggering trade gap of Rs.5,813 crores in 1980-81 as against Rs.2,499 crores in 1979-80. This ever widening gap in the balance of trade caused primarily by the rising import bill on account of crude oil, petroleum products, fertilisers and other crucial items essential for economic development, underlines the urgency of vibrant export efforts, on a sustained basis.

A number of steps have already been taken by the Government of India and the Reserve Bank to support and encourage export expansion on a stable and long term basis. Still, the exporters feel that, at the operational levels, there are a number of problems that they face, which hamper the growth of exports. Some of these problems relate to bank finance. There is a need to identify these problems and to promote, amongst banks and their exporter-clients, a better understanding of these problems in proper perspectives, before seeking solution thereto.

The article is confined to certain major issues/problems covering quantum and cost of export credit, timeliness of credit and procedures for credit disbursement.

Exporters generally feel that the banking system has failed to meet their credit requirements adequately. They add that the bankers are indifferent to finance exports mainly because of concessional rate at which such finance is to be provided. There is, therefore, a demand that the exports should be included in the priority sector, and the banks should be given certain targets of export finance to achieve.

Mr. Thakurta is a member of faculty of Bankers Training College, Reserve Bank of India. These are his personal views.

Genuine requirements

The available statistics on the subject, however, indicate otherwise. If we compare the growth of bank finance to export sector during the past five or six years with that of exports during the said period, we find that the former has out-paced the latter. The statistics may be misleading since the changes occurring in the composition and direction of trade and the longer credit period allowed to buyers might be factors leading to higher bank credit for the same level of exports. There is however hardly any doubt that the genuine short-term credit requirements of exporters, both at pre-shipment and post-shipment stages, are, by and large, taken care of by the bankers. In individual cases problems may arise due to differences in judgement between the banks and their exporter-clients as to what constitutes "genuine requirements" of exporters.

In this context, it is worth remembering that export finance is provided at concessional rate of interest and hence it must go to meet only the genuine need of the exporters. The onus lies on the borrowers to convince the bankers as to the genuineness of their credit requirements, for export purposes. "The question really is whether exporters want liberal credit at market rates of interest or restricted credit at concessional rates of interest. It will not be possible for them to get both i.e. US liberal credit facilities and concessional rate of interest". The target-oriented approach in lending for export purposes "may lead to a situation where banks will be more concerned with reaching targets rather than careful and purposeful deployment of the scarce resources for meeting the genuine needs of bonafide exporters." Priority is being given by banks to meet the credit needs of the exporting community, on appropriate terms.

A suggestion is made in various forums that export packing credits should be exempted from the purview of Credit Authorisation Scheme (CAS). As a matter

of fact, packing credit limits aggregating Rs.5 lakhs to a single borrower from one bank are exempt from the requirements of prior authorisation and such limits are only to be reported to the Reserve Bank. Further, banks may allow additional credit limits upto 15 per cent of the existing limits (packing credit) or Rs.25 lakhs whichever is less for a period not exceeding three months without Reserve Bank's prior authorisation.

Interest rates

Exporters often complain that the rate of interest on export credit is very high in our country as compared to that prevailing in other countries. Enough data are available to indicate that India's short-term credit interest rates compare favourably with those obtaining in most of the other countries. Moreover, the rate of interest on export credit is determined on the basis of general structure of interest rates and cost of funds. Any reduction in the rate of interest will, therefore, affect the profitability of banks so much so that they may find it unremunerative to extend export credit. There is no denying the fact that cost of export credit forms a small part of the total cost and the incidence of such cost should be kept down by 'efficient turnaround' of funds. What is perhaps more important for exporters is to plan for profit by reducing cost of imports and judiciously pricing their products in overseas markets.

Another complaint of the exporting community relates to bank's levying high margin of 10 per cent Ks 20 per cent for opening of letters of credit for the purpose of import; the margin should at the most be 5 per cent the exporters suggest. It is the pre-rogative of the banks to stipulate margins for opening letters of credit; while doing so, they have necessarily to take into account the nature of goods to be imported, credibility of the customers concerned and the nature or type of letters of credit to be opened by the banks. It is, therefore, left to the banks as to how much margin they would

like to stipulate; in certain cases, they may not insist on margin, at all.

Transit period

Exporters are alleged to be facing a particular problem and that is in regard to transit period fixed for bills drawn on different countries and they suggest that the transit period should be extended by at least 10 to 12 days. Bankers feel that the suggestions can be accepted provided they are re-imbursed through necessary change in the interest subsidy rate, by the concerned authorities. The exporters suggest that the Reserve Bank should allow them to grant credit for longer than usual periods in respect of shipments to countries in South America which are potentially good markets for consumer goods like pharmaceuticals. The suggestion is made because the authorities in some of these countries stipulate minimum credit periods that have to be granted by exporters.

A demand is also made that in order to expand sales of manufactured products in certain foreign countries, particularly in Africa, and also to ensure timely delivery of such products, arrangements should be made to establish warehouses at critical destinations abroad so that the goods could be sold off-the-shelf. The exporters, therefore, request the Reserve Bank for necessary approval and the commercial banks, for adequate bank finance. The suggestions definitely merit favourable consideration.

Consumer goods

A trend is observed to export consumer goods on medium and long-term credits to countries facing payment problems and the banks find it difficult to finance such credits because money will be blocked for a long time and will not be rotated. While appreciating the opportunities for extending exports to such markets, the bankers feel that they should be assisted by special refinancing arrangements by the Reserve Bank for such exports.

Exporters often express that as per the existing provisions, packing credit in anticipation of export orders is granted in the case of certain special commodities. This facility should be extended to all established exporters so that on the basis of their past export performance, they would be able to avail of packing credit to procure/manufacture goods for which export orders could be secured sub-

sequently. It is doubtful whether a blanket permission like this can be granted by the concerned authorities.

Foreign currency accounts

The diamond exporters have been insisting for a long time that they should be allowed to open foreign currency accounts abroad for financing diamond trade for exports, so that, exchange and commission involved in converting the currencies both ways can be saved. This is reported to be under active consideration of the government and the Reserve Bank of India. Another persistent demand by the exporters is that the existing period of 135 days for pre-shipment credit (initial period of 90 days + additional 45 days) should be extended to 180 days in all cases.

Relaxations have already been made by the government in respect of certain selected items, such as, hand-knitted carpets, leather manufactures, coir products, agricultural products (cashew, tobacco), sports goods, engineering goods (auto parts, iron and steel castings, hand tools, bicycle and bicycle parts and 23 more items). In terms of these relaxations, the pre-shipment credit period may be increased to 180 days at the ceiling rate of interest (at present 12.5 per cent); any extension in the period beyond 180 days will be at normal rate of interest and no interest subsidy will be payable for such extension. Interest subsidy of 1.5 per cent to banks for the enhanced period of 180 days will be provided. To bring more items under the above relaxations is stated to be under consideration of the government and the Reserve Bank of India.

Negotiation of instruments

Another area where the exporters experiencing difficulties relates to negotiation of export documents by their bankers. The banks are alleged to be taking long time in processing export documents; sometimes letters of credit opened by foreign buyers do not reach the exporters in time on account of laxity on the part of the banks in advising such credits. In some cases, letters of credit are reported missing or misplaced and the exporters are to arrange for duplicate copies and a considerable time elapses, for obvious reason, by the time the duplicates are obtained; the export documents, under letters of credit, are not properly scrutinised by bank officials and payment

is refused for even reasons which could have been rectified at the negotiating stage itself; export realisation advice is received after a long time — as a result, exporters suffer. The exporters also expect that the bankers should guide them in various matters relating to international trade, which is complex more now than ever before. They, therefore, suggest that adequate training, both extensive and intensive, should be given on a continuing basis to more and more bank personnel in the area of financing of international trade, etc.

It is true that there is a lot of scope for improvement in banks in the provision of the adequately trained staff in the area of foreign exchange and international banking to enable them to cater to the needs of the exporting community, with the required speed and promptness.

It is, however, heartening to gather that the bankers are well aware of their responsibilities in this regard and are organising their manpower planning and training efforts to rise to the occasion.

Adequate finance

Adequate finance is one of the most important ingredients of the basic infrastructure required for export growth. No export worthy proposal should languish for lack of credit. While it is for the bankers to take care of this, the exporters on their part have to build up an image for our country in the world market — a sustaining image of a dependable supplier. This they must, by giving more importance to “non-price competitive” demands like quality, strict adherence to delivery schedule, attractive packaging, etc.

It goes without saying that it is not the price which counts always. A study reveals that though Indian products are priced low, the buyers consider the prices unreasonable for the quality offered; whereas, Japanese products which are far more expensive are considered good value for the money by the buyers.

It is gathered that considerable efforts are put in by the Japanese on market research to tailor out a product to suit specific market. The term “export quality” means precisely this and not a product superior in quality to the one marketed locally.

Engineering and project exports in 80s

By R. K. SINGH

ONE of the outstanding features of India's export profile in the seventies has been the emergence of engineering and project exports. Although the growth rate was somewhat erratic the average annual growth registered was 24 per cent. The Engineering Export Promotion Council has drawn up a strategy for the eighties, in which the annual growth has been envisaged at 25 per cent. It has been assumed that 10 per cent of this growth would be accounted for by inflation and the remaining 15 per cent will be the real growth. The total physical exports of engineering goods and projects in 1980-81 amounted to Rs 900 crores. Taking this as the base, with an annual growth of 25 per cent, exports are estimated at Rs 9000 crores by 1990-91. In addition, there has been substantial invisible earnings generated through civil construction contracts.

It has been further estimated that the share of capital goods and projects at 38 per cent in 1980-81 would go up to 50 per cent of the target of Rs 9000 crores by 1990-91, thereby giving a total of Rs 4,500 crores. The remaining 50 per cent will be accounted for by the iron and steel based items and consumer durables.

Achievement of this target calls for massive mobilisation of resources as well as manpower. In this article, I will try to analyse the international and national environment as on date and as expected in the coming years, the major problems hindering a faster rate of growth in export and the steps required for achieving the goal.

International environment

Internationally, the following developments are most likely to influence our export:

(1) Because of national pressures caused by growing unemployment, high cost of

petroleum and political considerations most of the developed countries are likely to intensify their protectionist policies with the result that the free trade regime is likely to be subjected to various tariff and non-tariff barriers and developing countries like India will face increasingly greater competition and resistance in boosting their exports to developed countries.

(2) GSP benefits enjoyed during the seventies are likely to be eroded by various direct and indirect measures taken by the developed countries. Simultaneously, whatever GSP benefits are likely to be still available in the eighties, will be shared by China, whose presence exporters have already started feeling.

(3) Developed countries have already taken a vigorous export drive to wipe out their trade deficits. They are likely to further intensify their effort with the result that competition in the world market will be much more severe than what was witnessed in the seventies. Developing countries like India will not be in a position to match the promotional drive launched by developed countries.

(4) China has entered the world trade with a bang. Although for the next two-three years, we may not feel her presence in any significant way, once her production machinery gets going and she starts dumping her manufactured products in the world market, it will be difficult to meet the competition. With pricing system in China as it operates, we may have to face political prices in some countries and we may not match these prices.

(5) World financing institutions like World Bank which provided financial assistance and financed the industrial, infrastructural and other development programmes of developing countries in a big way in the sixties and seventies are facing financial problems because of lack of adequate contribution from developed countries. While the needs of developing countries are growing, the resources of world financial institutions are gradually

depleting. In a situation like this, many of the developing countries will not be able to implement the development programmes they have in mind or which they can undertake in future. If this happens, many opportunities in developing countries, which India plans to exploit may be lost.

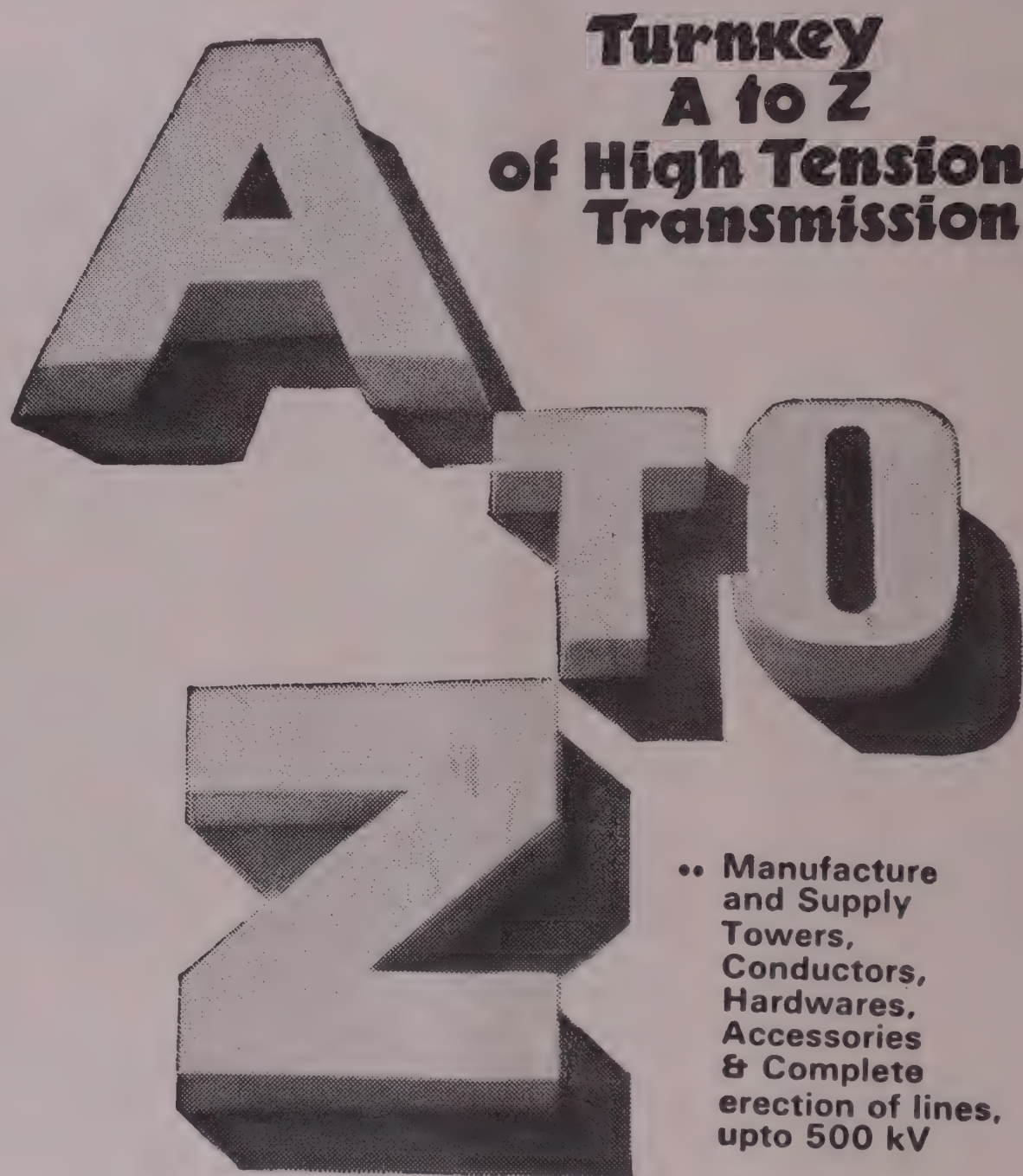
(6) Politically the situation around the Indian sub-continent is explosive. Signs of confrontation between big powers are growing every day. Indian Ocean has become the scene of feverish naval preparedness by super powers. War between Iraq and Iran, international tension because of developments in Afghanistan, massive military aid by the USA to Pakistan, are indicative of the tension being built up just outside our door.

(7) Arming of Pakistan by the USA with the most sophisticated military hardware will result into an arms race and to protect her interests and sovereignty, India will have to be in a state of preparedness. This will mean diversion of resources from economic development to strengthening of our military, naval and air forces.

(8) Oil producing countries, having realised their power by virtue of holding the oil reserves, have been dictating their terms to the petroleum consuming countries in general. Astronomical increases in crude prices have completely thrown out of gear the economies of developing countries in particular. While developed countries have been successful in more than recovering the cost of oil by increasing their exports to petroleum producing countries, developing countries have not been able to do so. Nearly three-fourth of India's foreign exchange earnings by way of export are being eaten away by petroleum products. Things are not going to be any easier in the eighties. Pressure on our earnings will be still greater. This would mean sacrificing other imports which may have adverse impact on production and development programmes.

(9) Although oil producing countries have created problems to non-oil produc-

Dr Singh is the Executive Director of the Engineering Export Promotion Council.



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ing developing countries, they have accumulated huge earnings which they are utilising either by launching various development programmes in their own countries or by assisting some of the developing countries in their development programmes. Opportunities on an unprecedented scale are, therefore, available for all those who wish to exploit them. Indian firms have also taken advantage of these opportunities but our participation in these projects has been far too insignificant. Some of the other developing countries like Republic of Korea have, on the contrary, cashed on the opportunities and increased their export substantially.

Domestic factors

While recent developments on the world scene are going to have their impact on our exports, some of the domestic factors are no less important and will have to be taken note of. They are briefly summarised below :—

(1) Lately, Government of India has taken a number of measures to increase export. They have been reflected in the increased exports during 1980-81. Protection of existing contracts, supply of steel at international prices, liberalisation of import, simplification of import licensing procedure, advance licensing system, introduction of 100 per cent export-oriented scheme, treating export production outside the licensed capacity, automatic expansion of facility, liberal import of technology for export production, creation of Export-Import Bank, are some of the measures which are going to have impact on our export.

Unfortunately, exporters are still experiencing a wide gap between the policy and its actual implementation. The main reason for this seems to be the fact that the urgency and importance of export is not yet shared uniformly by all the departments of the government and all sections of the people. Unless there is a radical change in the attitude and we create a culture of export, we shall continue to suffer. If countries like Singapore, Republic of Korea, Taiwan and Japan have made phenomenal progress in exports, it is because as a nation they have taken to export, they have realised that their survival depends on export, and they have created a culture of export. We will have to do the same. After all what can be a bigger threat to our existence than

spending 75 per cent of our earnings on import of oil and also be in the state of preparedness to meet the military threat posed by our neighbour.

(2) Supply of basic raw materials, availability of power, internal transport, shipping space, finance are essential inputs for any successful export drive. Thanks to the steps taken by the government, the position has substantially improved recently. If the export set forth by the Council has to be achieved, the essential inputs will not only have to be made available during the entire period, but substantially improved to cope with the changing pattern, composition and direction of our export.

(3) A closer analysis of our success in the past would indicate that exports have substantially increased during the period of recession in the country. Faced with continuous shortage of orders for equipment and services, the industry has looked for overseas markets. It is only during the world-wide recession in the wake of oil price hike that a section of the industry realised that exports cannot be built up on switch on and switch off basis and that they have to be an integral part of the overall production and sales policy. Unfortunately, two major recessions in the course of less than a decade have not yet opened the eyes of many of the manufacturers in the country. This is evident from the fact that some of the major sectors of engineering industry which have had creditable export to their credit, have withdrawn from export because domestic market has become very lucrative. This tendency will need to be curbed and Government policy and procedure will have to be so framed that producers do not completely ignore the overseas market and start exploiting the attractive domestic market.

(4) In a vast country like India with so much of domestic demand to be met, it would neither be desirable nor possible to ignore completely the domestic demand and do the export. Conditions will have, therefore, to be created in which production expands and both the domestic and export demands are taken care of.

(5) While export is a national commitment and every one concerned, directly or indirectly, will have to treat export as such some of the firms who secure contracts do not realise their responsibility.

Failure to execute the contract in time is because of their incompetence and inability to anticipate reasons which may result in slippages. A careful watch will have to be kept on major contracts, failure to execute which is likely to cause damage to the country's image.

(6) India's image as an exporter of engineering goods and projects, has, of late, increased considerably. India is now being recognised as a country, technically and managerially competent to undertake industrial and infrastructural development projects in Asia and Africa. Many of the developed countries are now looking to Indian firms as joint tenderers and sub-contractors. However, there is still lot to be done to fully exploit the Indian capability.

Major problems

Export of the magnitude planned in the eighties is dependent on the following four major factors : (a) Expansion in production base; (b) upgradation of technology; (c) Availability of export finance to match the requirement and competition from other exporting countries; and (d) availability of shipping facilities at competitive rates.

Presently, exports account for approximately 10 per cent of the total engineering goods production in the country. There are quite a large number of undertakings contributing quite substantially to the total engineering goods production but their contribution to export is nil or negligible. The share of export to production in the case of others varies from 5 to 25 per cent. Some of the units are exporting 100 per cent of their production, but they are very few. For achieving the target of Rs 9000 crores by 1990-91, the share of export to the total production will have to be gradually stepped up from the present level of 10 per cent to 25 per cent. This would mean that the total capacity of engineering industry will have to be raised to approximately Rs 45,000 crores so that with a production of approximately Rs 40,000 crores — 25 per cent could be available for export.

In a vast country like India with a large population, gradual improvement in the standard of living and consequently the growth in demand for a wide range of industrial products, it would not be in the interest of the country to export at the

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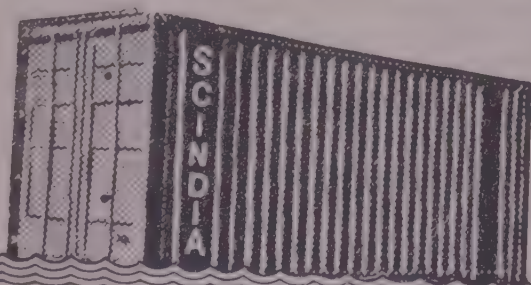


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cost of the domestic demand. It would, therefore, be desirable to create conditions in which the idle capacity in the industry is fully utilised and additional capacity is created to take care of the domestic demand as well as the export demand. Mere expansion in capacity and consequent increase in production, will not, however, automatically lead to increase in export. We cannot export what we produce. Our production will have to be according to the specifications, design, finish and performance expected by the overseas buyers. In other words, we will have to update our technology so that not only we can meet the specific requirements of the buyers, but also produce better quality products for the domestic market as well.

Capacity expansion

The Government of India has recently taken a number of steps towards expansion of capacity and improvement of technology. By and large, these steps are quite liberal and should give adequate incentive to the industry to expand and modernise its production. There are some areas where further improvement in the policy or streamlining of procedure may be necessary. At a time when the annual trade deficit is growing by 20 per cent and, in terms of dollar, it is running into 5 to 6 billion per year, it should, not be difficult for the government to remove the few road blocks still left in the way of expansion of capacity and modernisation of equipment. It is for the industry to take advantage of the facility offered and to suggest areas where, in its opinion, further improvement or liberalisation is needed.

While some of the industries have come forward to avail of the existing facility, unfortunately, a large sector is still watching and has not initiated positive steps primarily because of lack of finance. Steps will, therefore, have to be taken to see that adequate finance is available to them at a lower rate of interest.

Export finance

The third major problem relates to the non-availability of export finance. Although senior executives of Export-Import Bank, commercial banks and senior officials of the government have been heard reiterating the view that no worthwhile project would be allowed to fall for want of funds, in actual practice, opportu-

nities are slipping out of our hands because of our inability to match the financial requirement of the importers and the terms of credit offered by the competitors. Difficulties have also been experienced in the availability of necessary pre-shipment finance. Here again, while the senior executives of the Export-Import Bank and senior government officials have been heard remarking that individual cases and commercial banks involved should be brought to their notice in actual practice, the exporters have not considered prudent to lodge complaints against their bankers. Steps will, therefore, be required to offer financial facilities to the exporters in line with the facilities available to our competitors.

Shortage of shipping space

The fourth major constraint in the way of faster growth rate in export has been non-availability of shipping space for certain destinations. This has had disastrous effect on the overall capability of Indian project exporters and slippages on this account have been exploited by our competitors. It has to be appreciated that sometimes projects have to be undertaken at places away from the main ports and in countries with which the normal trade was very nominal. Most of the projects in the developing countries are either for improvement of infrastructure or for exploitation of the natural resources which have a direct bearing on the welfare of people in the countries concerned. Any slippage in execution of the contracts in time, therefore, receives attention at the level of the vast majority of people living in the country.

It is not my intention to suggest that the shipping lines must run the ships to every nook and corner of the world, wherever the projects are taken up, but only to highlight a major problem for which a satisfactory solution will have to be found. Then there are other matters concerning containerisation of cargo, freight rates, port conditions, which will have to be taken note of and improvements made not only from the point of view of overcoming the short term problems but also ensuring that projection which has been made is in fact achieved.

Besides the four major problems mentioned above, another important factor, which needs careful attention at

the level of the government, is the fact that India is gradually becoming a high cost economy. It is mainly because of the fact that the cost of all the raw materials and services, which are in the hands of the government, has been going up at a pace unparalleled. Unless the pricing policy is in tune with the conditions prevailing elsewhere or unless the steps are taken to ensure supply of all the raw materials at international prices, the competitive edge which India had enjoyed in the past will be lost.

Option before exporters

From the picture presented above, one would be tempted to conclude that conditions are not very conducive to any appreciable increase in export. This will, however, be a defeatist approach and not befitting the country of India's size, natural resources and available manpower. Compared to a large number of other developing countries, India is placed very fortunately. It has almost all the raw materials required by the industry. It has access to the third largest technical manpower in the world. It has imported technology in a wide range of spheres from almost all the developed countries and has adapted the technology to suit social and economic needs of the country. It has tremendous capacity to absorb the imported technology.

It has a large population with growing demand for all types of products which could be turned into a blessing in case of a drag in the export effort, if only, we could expand the production base to take care of the growing domestic demand as well as the export demand. The international situation, whether it is because of the competition from new sources or because of the protectionist measures adopted by some of the developed countries or because of the growing competition, could be boldly faced if only the industry takes them as a challenge and decides to reorient its working. What is needed is a change in the attitude and a culture for export, which, in my opinion, is the major factor contributing to the success of some of the developing countries in South East Asia.

Need for bold steps

With a view to meeting the challenges of the eighties, the Engineering Export Promotion Council has initiated some

very unorthodox and bold steps. Some of the steps taken in this direction may not yield result immediately, but, if pursued vigorously, could play a decisive role in achievement of the goal which the Council has set for itself during the eighties. The Conferences on Joint Tendering and Sub-Contracting held in Paris in November 1980 and in Tokyo in August 1982 have provided a unique opportunity for the Indian contractors to identify partners in the developed countries and to identify the sectors for co-operation in third countries.

The basic approach in these conferences has been mutuality of interest. Indian contractors have been as keen as their counterparts in the developed countries to join hands and offer a more competitive and acceptable package to the project authorities in developing countries. These conferences have created worldwide interest and the developments are being watched with keen interest. Desire expressed by other developed countries to hold similar dialogues with them is an indication of the tremendous scope in third country co-operation and increase in project export.

Ancillaries and components

In addition to the project export, the Council has taken steps towards exploring the opportunities for co-operation with original equipment manufacturers in the developed countries with a view to exporting ancillaries and components. The forthcoming Conference in Duesseldorf in November this year is aimed at —

- apprising the West European manufacturers about capacities available in India for manufacturing ancillaries and components;
- filling the information gap regarding technological sophistication attained by engineering industry to cater to the needs of European manufacturers;
- acquainting West European original equipment manufacturers about the competitive cost of obtaining their components and ancillaries from India;
- exploring the possibilities of transfer of technology from West European firms to produce the types of ancillaries and components required by the original equipment manufacturers.

The initial interest shown by the Indian and West European firms lends support to the view that export of ancillaries and components could be stepped up by collaborative efforts.

Faster delivery

Growing competition, high rate of interest, leading to shorter inventory and need for providing prompt services have necessitated steps on the part of the council, which would facilitate quicker maintenance and faster delivery. The council, with the cooperation of International Trade Centre, Geneva, is setting up a maintenance-cum-service centre in Birmingham. If the experiment is successful, similar centres will be set up elsewhere.

In certain promising sectors like handtools, our exports have been confined to six or seven major items. There is vast scope for garden tools, tools for automotive industry, tools for electronics, tools for wood working etc. It is necessary that organisations like EEPC, TDA should identify the types of tools which could be manufactured in India and, if necessary, import the design and technology.

International exhibitions

International and specialised exhibitions have been a powerful media for promoting export. The response from the industry, however, has not always been very encouraging. It has been partly due to the fact that cost of participation in these exhibitions has been beyond the means of individual exporters. It has also been partly due to the fact that the same exporters are expected to participate at the same time in too many exhibitions. A co-ordinated plan of participation in the various exhibitions needs to be drawn up sufficiently in advance and widely publicised, so that the individual exporters could select the exhibitions where they wish to make the maximum thrust.

Efforts should also be made to encourage participation of new entrants by providing them special concessions.

Considering the limitation of resources, it would be advisable to give concentrated attention to a few selected promising markets. After these markets are thoroughly exposed and exports have started moving on their own, new markets could be picked up. It is with this object in view, that EEPC has identified the following 21 countries for concentrated attention during the eighties:

South East Asia:

Sri Lanka, Indonesia and Malaysia

West Asia:

Iran, Iraq, Saudi Arabia and Libya

Africa:

Kenya, Tanzania, Uganda, Zambia, Zaire, Nigeria and Ivory Coast (including French speaking West Africa).

Developed Countries:

USA, France, FRG, UK, USSR and Australia

These identified countries are expected to contribute 75 per cent of the exports by 1990-91.

World Bank and ADB projects

Projects financed by World Bank and similar other institutions offer great opportunities especially in South East Asia, West Asia and Africa. With India contributing towards the funds of African Development Fund/Bank, door for participation by Indian contractors in ADF projects has also been opened. A vigorous and determined effort is needed on the part of Indian contractors. While they have demonstrated their capability and competitiveness in different types of projects financed by ADB in irrigation, agriculture, power, water supply, fisheries, sugar, cement etc., Table 1 reveals a disquieting picture :-

Table 1: Procurement from India against ADB Projects

Year	Goods & Related Services		Consultancy Services		Technical Assistance	
	Amt.	%	Amt.	%	Amt.	%
1977	16804	4.46	176	0.63	238	6.18
1978	25483	4.19	220	1.03	487	7.09
1979	16401	3.50	10653	21.10	864	7.52
1980	13949	1.66	332	0.80	861	5.84
1981	11622	1.77	1240	4.58	817	6.95

It will be observed that procurement of goods and related services from India has been declining over the past years. In respect of consultancy services after obtaining a share of 21.10 per cent in 1979 our share has come down to 4.58 per cent in 1981. In the case of technical assistance also, there has been no improvement in quantitative terms during the last three years. The continued downward trend in procurement from India is distressing, specially when the total lending by the ADB for various types of

projects has been increasing year after year. Indian project exporters will, therefore, have to give greater attention to such aided projects in the eighties.

Construction projects

The seventies witnessed a welcome development in the shape of several prestigious construction contracts. Although our success in this field has not been as spectacular as that of South Korea, our contractors deserve compliments for breaking new grounds. The performance of some of them has been acclaimed and

has earned them wide recognition. Unfortunately, bulk of the earnings has been in the shape of wages, profits and consultancy fees only. Not much has been earned for various reasons by sale of equipment, construction materials like steel and cement. Our concentration has been in Iraq and Libya. Top ten firms have accounted for 95 per cent of the contracts. Our aim in the eighties should be —

- coverage of new grounds and expansion of activities in Africa, Sri Lanka and some South, East Asian countries,
- Introduction of new contractors on a cautious basis.
- Consortium approach either with Indian firms or with contractors in developed countries and host countries.
- formation of joint companies keeping in line with the local laws and regulations.
- usage of Indian equipment and construction materials as far as possible.

Indian civil contractors have presently contracts to the tune of approximately Rs 4,500 crores. Gestation period of such contracts, on an average, is three years. It is, therefore, estimated that contracts worth about Rs 1,500 crores will be executed in 1982-83. EEPC expects that by 1990-91, the yearly execution of civil contracts would be in the region of Rs 7,000 crores. This would mean that contracts in hand by that time would have to be in the region of about Rs 21,000 crores. In terms of bidding, guarantees, deployment of man-power, availability of requisite type of construction equipment and construction materials, massive mobilisation of funds, man-power and organisational capacity will be needed. All this is possible only if we have a proper perspective, wide horizon and concentrate on the main job rather than dissipate our time and energy on petty matters.

The eighties are going to be far more difficult and far more challenging than the seventies. Indian engineering industry has however, the inherent strength and vitality to face the challenges. I have no doubt that with the support of the government and the bold measures initiated by the EEPC, challenges will be met.

Table 2 : Countrywise export of engineering goods from India

Country	1970-71		1978-79 (Rs crores)	1979-80 (Rs crores)	1980-81	
	Rs crores	Percentage to total			Rs crores	Percentage to total
USA	4.29	3.7	50.86	67.41	61.00	6.8
Saudi Arabia	1.96	1.7	38.69	45.93	55.00	6.1
Sri Lanka	6.47	5.5	39.41	39.09	42.00	4.7
USSR	2.33	2.0	28.37	30.93	37.00	4.1
UK	4.14	3.6	30.42	33.79	35.00	3.9
Tanzania	2.06	1.8	27.36	24.11	32.50	3.6
Bangladesh	—	—	23.48	28.97	32.00	3.6
Egypt	16.11	13.8	20.29	26.54	31.50	3.5
Iran	10.49	9.0	23.84	25.56	30.00	3.3
West Germany	3.13	2.7	23.14	23.84	30.00	3.3
Iraq	4.26	3.7	18.32	21.51	28.00	3.1
Malaysia	2.53	2.2	22.82	28.62	28.00	3.1
UAE	1.06	0.9	21.84	20.74	26.00	2.9
Libya	0.33	0.3	37.86	14.63	25.50	2.8
Kuwait	3.14	2.7	24.96	18.27	25.00	2.8
Kenya	2.80	2.4	21.35	14.56	25.00	2.8
Nigeria	5.39	4.6	15.15	18.76	25.00	2.8
Singapore	3.40	2.9	18.40	16.75	21.00	2.3
Indonesia	1.65	1.4	13.75	17.33	16.00	1.8
Thailand	2.93	2.5	11.06	11.55	15.00	1.7
Nepal	2.81	2.4	10.20	12.00	15.00	1.7
Yemen Arab Republic	—	—	10.52	10.38	13.00	1.4
Yugoslavia	6.06	5.2	10.44	4.16	13.00	1.4
Australia	1.64	1.4	9.64	10.45	11.50	1.3
Sudan	4.30	3.7	7.20	6.99	11.50	1.3
Oman	0.23	0.2	6.53	8.65	11.00	1.2
France	0.24	0.2	5.50	7.25	10.00	1.1
Holland	1.00	0.9	4.75	4.61	8.00	0.9
Canada	0.51	0.4	4.39	5.88	7.00	0.8
Uganda	16.16	13.8	5.16	9.90	7.00	0.8
Qatar	0.86	0.7	5.54	4.03	6.75	0.8
Switzerland	0.08	0.1	18.82	1.90	6.50	0.7
Bahrain	0.40	0.3	5.33	3.27	6.00	0.7
Mauritius	0.24	0.2	5.36	4.97	6.00	0.7
Philippines	0.79	0.7	6.80	4.12	6.00	0.7
Zambia	0.74	0.6	3.45	8.39	6.00	0.7
Others	2.06	1.8	85.93	100.84	135.25	14.8
Total	116.59	100.0	716.93	736.68	900.00	100.0

Notes: Countries are ranked in the descending order of exports in 1980-81.

(—) = Nil or negligible

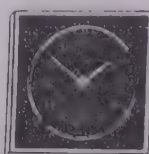
During 1981-82 exports of engineering goods amounted to Rs 1,100 crores, the countrywise break-up of which is not available.



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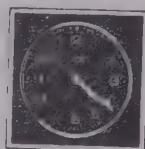


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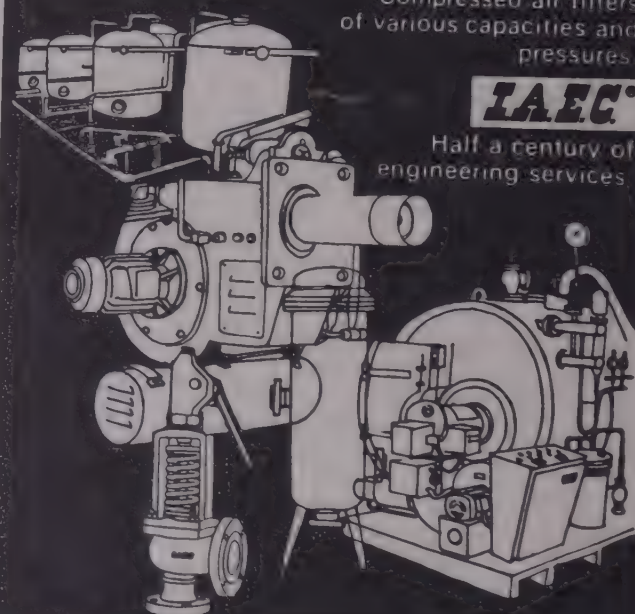
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Multifibre Arrangement and textile exports

by R. L. N. VIJAYANAGAR

IN spite of India being the second largest textile producing country in the world, its share in the global exports of textiles is very small, being only 1.4 per cent. This compares very unfavourably with the shares of small countries like Hongkong and South Korea which are 4.8 per cent and 3.6 per cent respectively. The need to increase our textile exports, which are a major source of foreign exchange earning for the country, to the tune of Rs.800 crores per year, hardly requires to be stressed. Of late, textile exports by India have been taking a downward trend due to various reasons, having been increasingly priced out of the international markets by cheaper and better quality products of rival suppliers.

In common with other developing textile exporting countries, India too is vitally concerned with the Multifibre Arrangement (MFA) which governs the global trade in textiles with a view to ensuring its more equitable distribution. India too has been hit by the phenomenon of growing protectionism on the part of the developed countries since the mid '70s consequent on the oil squeeze, which has very adversely affected their economies, and has been concerned at this protectionism becoming more and more pronounced in the context of the continuing recession and had been worried that the renewed MFA might prove worse than its predecessor. But fortunately these apprehensions did not come true as after protracted negotiations, the developed countries, presumably in response to the pleas of the developing textile exporting nations as well as their united stand against a 'divide and rule' policy, decided to adopt a more liberal approach to the issue of allowing larger imports of textiles and to modify the clauses accordingly.

India is naturally happy that under the protocol extending the arrangement regarding the international trade in textiles adopted in Geneva on December 22, 1981, after prolonged negotiations during which at some stages the talks appeared to have almost broken down, conditions have now become more favourable for the developing countries to maintain and expand their exports of textiles so essential and beneficial to their economies which have been badly battered by the mounting oil import bills and the deteriorating balance of payments position.

India welcomes the modification of the clauses in the renewed MFA particularly the special status given to India as a cotton producing country occupying a middle range position in the group of developing textile exporting nations unlike the more advanced Hongkong and South Korea, and the quotas not being based on the actual previous performance but to be fixed in relation to the access rights for 1982, that is, the existing levels. Both the Government and the textile industry in India have accordingly enthusiastically accepted and welcomed the revised provisions of the new MFA as one marking a return to the comparative liberality of the earlier years subject, of course, to the spirit and letter being stuck to in the actual bilateral agreements to be renewed and signed between India and various textile importing countries.

Outstanding feature

The outstanding feature of the renewed MFA, which has been extended for a period of 4 years and 7 months until July 31, 1986, is that the clauses relating to "reasonable departures", which had quite adversely affected the exports of textiles from the developing countries, including India, stands removed. These "reasonable departures" clause had been extensively used by many of the developing countries to "keep down and stem the tide of the invasion of cheap textiles from the developing nations". These "reasonable departures" had indeed in many cases been unreasonable departures

which had been arbitrarily resorted to by the developed countries much to the detriment of the textile exporting interest of the developing nations.

It is a matter for satisfaction that the fight of the developing nations for their legitimate rights and against discriminatory treatment and excessive and open protectionism has borne fruit, though it should not be imagined that the battle is over as vigilance will have to be continued to be exercised so that the protectionism of the developed countries does not assume new forms and stratagems like anti-surge mechanism.

Salient features

The salient features of MFA III are as follows: The exports of cotton textiles from cotton producing exporting countries will receive special consideration. This will considerably help cotton producing textile exporting countries like India and Pakistan in whose economies cotton as well as textiles production and exports occupy a very important place. Where restraints are made applicable, more favourable terms will be accorded to these countries in terms of quotas, growth rates and flexibility provisions, in view of the importance of this trade to these countries.

As for the quota levels, these will be fixed in relation to the access rights for 1982, i.e. existing levels, and the idea of fixing quota levels based on the actual exports was finally abandoned. Had this been taken as the basis, it would have harmed India's interest, our performance in reaching the quotas fixed under the previous MFA having been quite poor due to various reasons. Predominant exporters of textiles such as Hongkong, South Korea, Taiwan and Macao have agreed to accept cutbacks in their quota levels. Another helpful modification is that the restraints on exports from small suppliers and new entrants would normally be avoided.

The onus of proving the actual market disruption on account of exports

Mr. Vijayanagar is the Secretary-general of the Millowners' Association, Bombay.



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in the developing nations is now cast on the importing countries. The market disruption in the importing country is to be determined with reference to the decline in the rate of growth of per capita consumption of textile and clothing, technological changes and changes of consumer preferences and sharp and substantial increase in exports. "Market disruption" has been turned into a wide and somewhat loose concept and under this cry, developed countries had, among other methods, managed to 'contain' the exports of textiles from developing nations. It has been a protectionist feature of the more open and sweeping kind which developed countries of the EEC and the USA adopted as a device to counter the severe and successful competition from the developing nations to safeguard the interests of their own comparatively less economically efficient domestic textile industries.

Bilateral agreements

Individual exporting and importing countries will now renegotiate their bilateral agreements. A clear picture about the nature of benefit to exporting countries can emerge only after such bilateral agreements are concluded. These are being negotiated in terms of the protocol extending the MFA. The negotiations currently going on with EEC have brought to the surface the hardened attitudes of EEC countries towards enlargement of quotas particularly of clothing from the developing countries. Of course, India will now have to use its bargaining and persuasive powers to the full at the highest diplomatic level to ensure that the agreements to be concluded with various developed countries would be more favourable to us and would fully safeguard our interests.

The roles of the Textiles Committee of the GATT and the Textile Surveillance Body in ensuring that the MFA and the bilateral agreements worked equitably and smoothly will continue as heretofore and they are expected to do the job in a more effective and balanced manner. In the exceptional cases where there is recurrence or exacerbation of a situation of market disruption, the exporting country may agree to any mutually acceptable arrangement with regard to flexibility.

Where such difficulties arise from

countries consistently under-utilising their quota levels and causing or threatening to cause serious damage to the domestic industry of the importing country, the exporting country may agree to mutually satisfactory solutions. The developing nations are expected, on their part, to be responsive to the problems and needs of the developed countries also in this respect and to accommodate them as far as possible. But the important thing is that the legitimate rights and aspirations of the developing countries to expand their textile exports have won better recognitions and have been more or less conceded after a vigorous attempt to deny or suppress the same.

Quota fulfilment

But India's performance with regard to the fulfilment of quotas with various countries has been miserable, the utilisation having been only of 32 per cent and 15 per cent respectively in the case of the EEC and the USA in respect for fabrics. For the year 1981 our annual quota for exports of fabrics to the EEC was of 40,380 metric tons while our performance for 1981 has been hardly 13,000 metric tons representing 32 per cent utilisation of the quota. Within the EEC market, Denmark is the only country in which performance has been satisfactory. In respect of Italy our performance has been much better than that in other countries. The shipments of fabrics during 1981 to various EEC countries with the annual levels shown in brackets were:-

West Germany 1,788 m.t. (4,240 m.t.), France 1,481 m.t. (4,671 m.t.), Italy 1,808 m.t. (2,304 m.t.), Benelux only 156 m.t. (1,523 m.t.), S. Ireland 145 m.t. (373 m.t.), Denmark 450 m.t. (426 m.t.), U.K. 7,170 m.t. (26,763 m.t.). The shortfall in the performance with regard to U.K. has been most marked.

In respect of the USA, where fresh negotiations have commenced, of 184.74 million sq. yards, our performance during the year 1981 has been only 28.10 million sq. yards, i.e. hardly 15 per cent and can be described as dismal.

Shipments in the first three months of 1982, January/March, indicate that our quota utilisation in the current year will be the lowest on record. Our projected exports of fabrics to the EEC would be of the order of only 19 per

cent. In the four-year period, 1978 to 1981, the lowest performance was 32 per cent in 1981 and the highest at 93 per cent in 1979.

In respect of the USA, our performance is running at an annual rate of only 5 per cent.

Shipments of made-ups

Our performance in respect of made-ups to quota countries has also considerably lagged behind the annual levels for the EEC countries. The shipments of toilet and kitchen linen (terry) were only of 1,019 m.t. against the annual level of 4,169 m.t., those of handkerchiefs were 27.446 million pieces against 69.975 and of bed linen 2,363 against 6.462 m.t. In table, toilet and kitchen linen (non-terry), the shipments were practically nil being only 103 m.t. against the annual level of 1,402 m.t. However, in respect of the USA our shipments of these items during 1981 were 13.85 million sq. yards against annual quota level of 16.50 million sq. yards, showing a good performance at 84 per cent. Exports of bed linen to Sweden and Norway have lagged behind our quota levels. The exports of table linen, curtains and towels to Sweden have more or less matched with the quota levels.

Our performance in fulfilling the quotas has thus been most disappointing. We have, therefore, to make all out and systematic efforts to take full advantage of the scope for expansion of exports offered by the new MFA and to realise the quotas, removing the various bottlenecks standing in the way of larger exports. The obstacles and constraints have to be properly identified and overcome.

It may be observed here that the International Monetary Fund, which has extended a 5.5 billion dollar loans to India has laid down as one of the conditions that we should make all out efforts to increase our export earnings. As recipients of this loan, which is the biggest of its kind so far given to any country by this lending institution, it is incumbent on us to try our best to maximise our export earning, this being a reasonable condition imposed by the IMF. Of course, it is also in our own interest, nay desperately necessary for us, to increase our exports and foreign exchange earning and to effect import

substitution wherever possible, due regard being had to the doctrine of comparative cost.

Textiles constitute one of the important items of export with vast growth potential. We have accordingly to make our textiles better in quality and cheaper in price in order to meet the fierce and unequal competition in the international market from where we are in danger of being ousted by more efficient suppliers with superior products and more vigorous marketing methods. In order to reduce the costs of production of our textiles, it is necessary to make available to the industry credit at a cheaper cost. This is one of the most important and essential measures for the promotion of exports of textiles which has now to be undertaken not in a sporadic or random fashion, but in a concerted and systematic manner.

Future prospects

In the book "UNCTADS, UNIDOS, ILOS AND GATTS — prospects for exports of Indian textiles during '80s", jointly authored by Mr. R.P. Poddar and the present writer, we had made various suggestions on how to boost the exports of our textiles. In that study we had analysed the reasons for our comparative unsatisfactory performance on the textile export front and assessed the prospects in the coming years which we considered none too encouraging but which we felt could nevertheless be made brighter provided the industry and the government together adopted and implemented various measures to strengthen the viability and production base of our textile industry. The industry at present suffers from serious disadvantages, mainly the inefficient and uneconomic nature of its operations on account of the obsolete and outmoded machinery used, the raw materials and infrastructural constraints etc. But it also enjoys certain advantages such as the industry being well established and sufficiently developed with adequate technical expertise and cheap labour and the fact of our being a large cotton producing country.

The concrete suggestions made in the book included the establishment of a properly organised and integrated textile industry sufficiently organised in all its sectors including the decentralised handlooms and powerlooms, as also a more modernised textile machinery manufacturing industry with a broader techno-

logical base to enable production to be oriented towards the needs of the world market and for the adoption of vigorous export promotion measures not in the half-hearted way it has been done hitherto but in a thorough manner. We had stressed the necessity for removing the various infrastructural constraints suffered by the industry and raising its productivity levels to sharpen its competitive international edge as also for making its products cheaper in order to enable them to hold their own in the world market.

Technological uplift

We had shown how it was imperative to technologically uplift the industry in keeping with the global trends and demands with regard to the textile requirements as well as to make the production for exports as profitable as for the domestic market. We had pleaded for various incentives and special assistance for export oriented units and suggested the development of a sector of the industry specifically to meet the quality requirements of the export market.

We held that the salvation of the Indian textile industry would ultimately consist in making its products more competitive in quality and price in the international market rather than depending on the magnanimity of others and to learn the lesson and understand the necessity of self-reliance. We had even welcomed the multinational participation in the development of our textile as well as textile machinery manufacturing industries for overcoming the problems of scarcity of resources and absence of latest technical knowhow.

One of the suggestions we had made in this connection was for the transfer to India of the closed textile factories of EEC for mutual benefit on some basis of collaboration. We had cited the example of Indonesia which in recent years has modernised its textile industry with foreign collaboration and greatly benefited thereby and mentioned how that country as well as Singapore and the Philippines had installed the latest type of machinery. We had also suggested according free trade zone type of incentives and facilities for textile mills making substantial exports. We had pointed out how up to 30 per cent rejects, which are incidental to the production techniques employed and the overseas requirements

and standards, should be allowed for such units to be sold in the domestic market.

We had recommended allowing duty-free imports of secondhand machinery by export-oriented mills as an answer to the problem of producing for the world market with its sophisticated requirements of textiles and clothing. We had also stressed the necessity for properly and systematically developing our garments and made-ups industry with their vast potential for growth of the exports and where we enjoyed some advantages particularly by way of lower labour costs. We had also pointed out the need for a more aggressive marketing approach on the part of the industry, which should become more export-conscious and for a dynamic and well sustained export promotion drive with the full support of and active participation by the Government.

Industry proposals

Now the industry has submitted to the government, on somewhat similar lines to the above, three schemes for boosting the exports of textiles. Under Scheme I, the industry has suggested that as completely new 100 per cent export-oriented units for cotton textiles may not be forthcoming, keeping in mind the current international textile situation and the state of the mill industry in India, mills could be allowed to import and instal sophisticated looms and some preparatory and processing machinery on a duty-free basis for the purpose of export production on condition that the stipulated percentage of production from such machinery is guaranteed to be exported.

According to the industry, some changes in the existing scheme would be necessary and useful for the purpose. It has pointed out how the provisions in the existing scheme for rejects of upto 5 per cent only to be sold in the domestic market and 95 per cent to be exported is unrealistic having regard to the type of machinery and the levels of technology obtaining in India and that the attainable level would be around 70 per cent and this should be fixed as the percentage for exports. In the case of free trade zones, the government has now under the budget proposals for 1982-83, allowed 25 per cent of the goods manufactured in these Zones to be cleared into the domestic tariff area, subject to certain conditions and on payment of appro-

iate duties. Since there are larger defects/rejections in the case of textiles, the government should permit 100 per cent export-oriented units to sell in domestic market, in the shape of remnants/rejects, to the extent of 30 per cent of their total production. The export obligation should be for a period of five years.

Another important suggestion under the scheme is that our mills should be enabled to take advantage of the distress sales being made at present of second-hand machinery by some of the West European countries where the operation of many mills has become uneconomic owing to very high labour costs and technological changes with which they have not kept pace, as these are available at very cheap prices and performance-wise they are superior to the indigenous machines and these should therefore be acquired as they could be well employed for the production of goods for exports as they are likely to find ready acceptance in the overseas markets. Their imports should therefore be allowed duty free and the machinery should be eligible to get investment allowance under the Income Tax Act.

Other important points of Scheme I are: Cash assistance under the cash compensatory scheme will have to be given to exporting units enabling them to buy the raw materials, components etc. on duty free basis, these being purchased domestically in the case of this industry; exports finance to units undertaking such obligation to be made available at 7.75 per cent as in the case in respect of tourism in the Kandla Free Trade Zone; the computation of export performance to be made at the end of a five year period and not on a year to year basis — 50 per cent of the obligation to be fulfilled at the end of three year period; priority to be given in delivery of indigenous machines to exporting units and they should be exempted from excise duty; the facility of staggered delivery of cotton should be extended to units which commit for exports on long term basis; and a special line of credit to be made available to mills for purchase of machines required exclusively for export production.

Second Scheme

Much of Scheme II overlaps with I. It

lays stress on the necessity for modernisation of the existing units for maintaining and increasing our exports to quota countries which they may not be able to keep up unless modernisation is done forthwith what with the pace of technological changes taking place abroad. The second scheme wants duty-free imports of textile machinery, both new and second-hand, to exporting mills; export obligation to be fixed at five times the value of the machines to be achieved over 8 years in addition to the maintenance of exports calculated at 50 per cent of the export performance in the last three years, at least 50 per cent of the obligation should be performed at the end of a 4 year period and the full obligation over 8 years. Units undertaking export obligation should be completely exempt from power cuts, and adequate power should be supplied so that export production is fully kept up.

Scheme III is based on the belief that the long term solution for boosting the exports of textiles is to build up a sound base of mills for exports which can be achieved through import entitlement for textile machinery against exports of cotton textiles which would speed up the modernisation of the industry. One of its main suggestions is that against exports of fabrics to quota countries, particularly EEC and USA, duty-free machinery entitlement be given as this would achieve the twin objective of attaining higher exports to quota countries as also strengthen the base for export efforts. The rate of machinery entitlement, to be valid for both new and second-hand machines, has been suggested at 25 per cent of the value of the exports. The machinery entitlement can be either gained through actual exports or obtained in advance against guaranteed exports and should be allowed to be accumulated upto three years from the date of issue as this would enable mills to bulk their entitlement and help import and installation in a planned manner.

Export promotion scheme

The industry has also submitted a separate export promotion scheme for blended goods. It has pointed out that there is an urgent need for the introduction of a truly viable scheme for promoting the exports of blended textiles. While today 52 per cent of the total world trade in textiles is in blends and synthetics, our

exports of these are almost non-existent. The world markets are seeking more and more of such fabrics and garments made therefrom and therefore their share in the total textile trade is likely to increase.

The recommendations that the industry has urged government to adopt for promoting exports of blended and synthetic textiles are: duty-free import entitlement of polyester fibre at 1.25 kg. against every kg. of polyester contained in the exported goods; continuation of 15 per cent cash assistance of F.O.B. value of exports and no yarn duty to be collected at the spinning point on cloth being produced for export; the yarn duty to be collected on that quantum of cloth which is not exported and is sold in the domestic market. Currently, the duty free import entitlement of polyester fibre is at 1.125 kg. against every kg. of polyester contained in the goods exported. This is regarded as woefully inadequate and some stray exports only take place on the basis of this scheme. But the industry has urged that Government immediately accept the scheme and announce it at the earliest to enable exports of blended goods to be done in a meaningful manner and to a significant extent.

As regards export of hosiery, these have been rising steadily from year to year, but the potential still remains largely untapped. There are mills which are interested in setting up knitting units but are unable to do so as they are not allowed to instal knitting machines on the grounds of their being reserved for the small scale sector. But if exports of these items are to be built up, mills have to be allowed to instal them.

Ready-made garments

It may be added here that the future belongs to ready-made garments where we have to maintain and to further improve our good export performance. But there is need to take continual note of and to keep pace with the changes in fashions in garments and the overseas requirements of various markets which have to be carefully studied along with likely future trends.

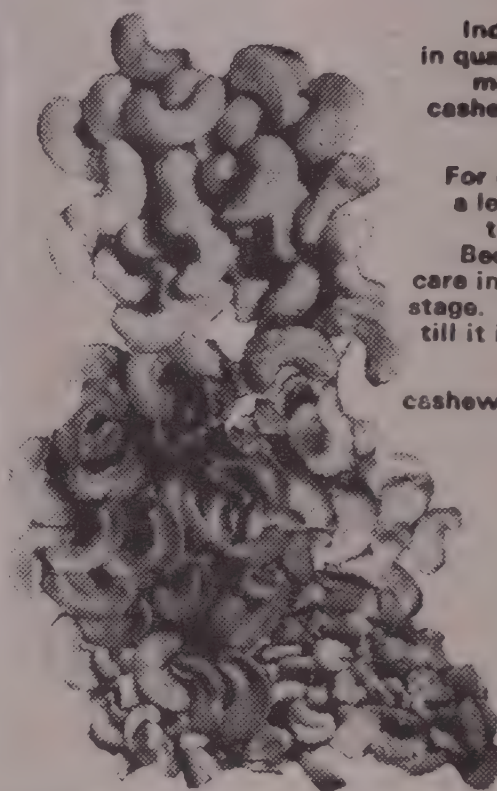
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Hurdles in tea exports

By S. N. BAGLA

ASTUDY of the Indian tea exports over three decades does not show much change in the quantum of tea exported during all these years which kept fluctuating up and down between 200 million kg. to 223 m. kg, only once touching the all-time high of 242 m. kg. during the year 1976. But within these confined quantum, the flow has changed during these years from hard-currency and traditional Indian tea importing countries to countries covered by rupee trade and bilateral trade agreements. Among the former are the UK, the USA, Canada, Ireland etc. and latter group comprises the USSR, A.R.C., Poland, Afghanistan etc. While UK's Indian tea imports declined from 130.65 m. kg. in 1951 to 40.09 m. kg. in 1980, the exports to the USSR rose from 8.33 m. kg. in 1966 to 65.94 m. kg. in 1980. Some breakthrough has been made in the West Asian countries during 1970s with the rise in affluence there and consequent rise in tea offtake.

Certain growing compulsions in the marketing of our surplus teas encountered in our traditional and hard-currency importing countries gave rise to search for new countries which would be interested in importing our teas and in onsequence the pattern of outflow has considerably changed. Price consciousness has emerged as the most dominant factor in the western countries which overrode the taste factor in diverting their supply sources to various other newly emerging tea producing/exporting countries with their cheaper teas. While satisfying their need for tea with more and more of common variety imports, these countries are effecting considerable saving on their tea imports.

Diversion of our bulk tea exports to rupee trade and bilateral trade countries has not benefited the country much in terms of earning the much needed hard-currency but has been enabling us to dispose part of our surplus teas which would

otherwise flood the domestic market with serious consequences on price.

Static volume

While our volume of exports has remained almost static, our share declined sharply over the decades. We have not been able to share in the rising world tea consumption outside India, however slow the rate of growth might have been, as shown in table 1 :

Table 1 : India's share in world exports
(in million kg.)

	1951	1961	1970	1980
1. Export from India	206.00	206.29	202.02	224.03
2. Exports from others	251.8	339.71	433.58	648.51
3. India's share of world market (in %)	45%	37.8%	30.9%	25.68%

As there has been no perceptible increase in our tea exports quantitywise during this period, change in export pattern became essential to improve our foreign exchange earnings through improvement in unit price realisation. This could only be brought about by gradually shifting from exports in bulk to exports in value added forms. Marketing of teas in value added forms viz. packet tea, tea bag and instant tea has the advantage of better unit price realisation than in the form of bulk tea marketing. The trend in value added tea exports can be had from Table 2.

Facing a wall

A cursory glance at the figures at once shows up a declining trend in packet tea exports after reaching maximum in 1978-79 and a slow growth both in tea bags and instant teas which pays twice as much for each unit exported over the packet tea and three times of bulk tea exports. A

tremendous amount of money and energy devoted to finding and expanding markets abroad has not paid sufficient dividends. There has been something amiss in our efforts and we find ourselves facing a wall.

In tracing back the genesis of this continuing stagnancy in our exports over three decades despite all our promotional efforts, we find that the wall we are up against has been founded and built on our adverse fiscal policies combined with inability to lay down clear cut policies towards tea exports and the constant search of importers for diverse sources of cheap supplies. Our uncertain tea export policy over the years has been primarily responsible for the present position. We have not been able to decide whether to treat tea as essentially for the domestic consumers or to give exports definite preference over internal consumers. This policy has ever since been vacillating and exigencies of situation have seen internal consumers being given preference at times at the cost of exports through export duty and export cess and at other times incentives being provided to boost exports. Since these preferences have been alternating, the fiscal policies were designed to suit immediate needs only. Even the full rebate of excise duty on tea exports although greatly welcome has been partial in effect for it is not available to small tea producers and other than direct exports from tea estates have to be content with 44 paise per kg.

Four phased approach

The Tandon Committee on Tea Marketing has in its report recommended a four phased approach — beginning with export of packed teas of premium quality to countries without packing facilities to independent marketing efforts in the major markets. But the report cautions that in order to support value added teas abroad we should first encourage organised marketing at home and exporters should be assured of a stability in export incentives to value-added products. As for

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the second caution, I have already cited the case of the partial excise duty rebate of 44 paise per kg. allowed on value-added tea exports. As to the first caution, on the contrary the packaged and instant teas are burdened with additional excise duty along with the current rate of basic excise duty plus 5 per cent special charge. Only a little over 25 per cent of the total consumption is in packet form, the share of which has dropped from 45 per cent in 1971 to 27 per cent in 1981. It has raised the cost of packets by widening its price differential with loose tea and as a consequence necessary support to value added teas abroad could not even get a start.

Whether it be export of bulk or of value-added teas, first requisite is to have sufficient production of tea (like any other commodity) to meet growing home demand and meet the growing export demand. Economies of scale will cut down the cost of production so as to give our export teas more than sufficient competitive power to match cheap teas from other countries. Indian teas have been increasingly priced out of the overseas markets being costliest of all. Steep rise in prices of all inputs and labour expenses along with rising tax burden have pushed up costs to a point where the importers are not keen on buying Indian teas. We have also to enunciate our export policy in clear terms so that the tea importers can place orders without any doubt about those being executed in time and without sudden hindrance.

Constraints and restraints

With a total annual yield of 575 million kg. the gross value of tea is above Rs.850 crores of which foreign exchange earnings account for Rs.430 crores, above 50 per cent of total earnings. It has been a most consistent foreign exchange earner for our country over 100 years and presently accounts for 6.4 per cent of total foreign exchange earnings. The continuing hardship being faced by the country in earning scarce foreign exchange for essential imports, our export efforts have gained added importance as also urgency. At this juncture we have to decide and lay down clear policy on tea exports *vis-a-vis* domestic consumer and revenue consideration.

In order to give an earnest battle in the foreign market, tea should be unchained from all constraints and restraints which have resulted from fiscal policies and undue importance given to domestic consumers. Every encouragement must be given to tea exporters in expanding the existing markets and creation of new markets. The export priorities should always have upper hand when it comes to deciding between exports and domestic consumers. Fortunately, presently there is no export duty. But a withdrawal of the West Bengal Entry Tax and Production Cess and full rebate of excise duty on all teas exported will mean a great deal in this direction.

Tea agreement

Discussions and consultations have been on for some time now among tea producing/exporting countries for arriving at an International Tea Agreement on export quotas and on prices of tea exports for providing a remunerative price to exporters and an equitable price for tea consumers. This will be of great advantage and beneficial to tea exporters. But from the trends of discussions and the number of consultations held so far it is clear that certain tea exporting countries are not very keen on such an agreement for they can still gain by undercutting others and gain a larger share of the market at others' cost. There are no permanent friends in the international scene but only the permanent interest of a nation. If this agreement does not come off then India should be in a position to give competition in the export market from a position of strength and advantage. It should have enough manoeuvrability and its prices so that it is able to meet the challenge of others. It can only

come from its ability to expand its production, yield per hectare as also the labour productivity considerably. The scale of economy with expanding production, land and labour productivity will effect a cost reduction or at least stabilise the cost at the present level.

Financial difficulties

The tea industry suffers seriously from financial constraints. In addition to a number of indirect taxes like excise duty, entry/tax production cess, Central and State sales tax on purchase of teas etc., the direct tax on taxable income of tea comes to 67.55 per cent as compared to 56.375 per cent on all other industries. As a consequence, income generation is very small. Term loans and working capital finance are extremely costly which discourages development plans. With the levelling of direct tax at 50 per cent and treatment of the tea plantation industry in the priority sector for loan and interest charge purposes, the industry can go ahead with the target of 1400 m. kg. by 2000 A.D. at an annual growth rate of 30 to 35 m. kg. per annum over next 20 years. This will meet growing domestic demand and our share of rising overseas demand. This way we can maintain growth of quality teas as also cut down the cost to meet the export market demand for both.

Our export efforts should form an integral part of the overall development programme of tea industry and that will take into account shortage for production as well as the high cost of tea production. In fact, with the rapid expansion in our tea production base, there need not be any conflict between the growing home demand and need for maintaining our share of growing export market with our competitive teas.

Table 2: Trend in value added tea exports

Item	1965	1976-77	1977-78	1978-79	1979-80	1980-81	1981-82	Unit price in 1981-82 (Rs./kg.)
Packet Tea	1504	12,612	25,187	38,599	30,234	32,300	20,100	23.08
Tea Bags	—	285	390	238	493	754	685	45.76
Instant Tea	—	584	597	686	655	761	854	50.84

Opportunities in Indo-EEC trade

by MALCOLM SUBHAN

WHEN looking at the prospects for Indo-EEC trade three facts need to be recorded at the outset. The first is that the European Economic Community (EEC) is the world's largest trading bloc. Its ten member states together account for roughly one-third of world trade. In 1980 the EEC's total imports amounted at \$ 740 billion, of which over half (\$ 380 billion) originated in countries outside the Community's own frontiers.

The second fact is that some 25 per cent of India's exports are to the EEC; they represent, however, under 1 per cent of the Community's total imports. (The corresponding figures for Indo-US trade were 13 per cent and 0.5 per cent in 1981). In 1980 India's exports to the EEC came to just over \$ 2.5 billion, putting it in 31st place on the list of the Community's outside suppliers, just after China and Singapore (\$ 2.6 billion each) but just before Malaysia and Argentina (\$ 2.4 billion).

The third fact is that India's exports to the EEC, whether of raw materials, semi-manufactured products or of manufactures, consist of products which are being supplied by other countries also. India is not an important supplier except for two or three products, such as bulk tea and jute manufactures. Its non-traditional exports — whether of garments or engineering products — are aimed at the lower end of the market.

This means that the Community as a whole could dispense with imports from India, confident that other countries could make up the shortfall. The situation is very different as regards its exports to India. While they represent less than 1 per cent of the EEC's exports to third countries, they are very important to the Community at a time when world trade is in the doldrums. Unfortunately, India cannot use its own imports from the EEC as a lever with which to secure better access to the Community market.

It follows from the three facts mentioned above that Indian exporters and officials must work hard in order to build up exports to the EEC. Their European counterparts are likely to be indifferent

at best: they will not make any special efforts to import from India, given that there are so many suppliers clamouring for a share of the Community market.

Table 1 shows the evolution of Indo-EEC trade between 1976 and 1980. (Statistics for 1981 have been held up because of a strike a year ago by the UK civil service.)

like. Demand for consumer goods — such as textiles and clothing — is bound to stagnate while unemployment continues to rise.

The continued rise in unemployment is certain to affect the EEC's import trade even more than hitherto. So far social security payments to the unemployed

Table 1 : Indo-EEC, 1976-1980
(in million US \$)

	1976	1977	1978	1979	1980
India's exports	1,573 (38)	1,873 (19)	2,045 (9)	2,503 (22)	2,501 (0)
India's imports	1,254 (-7)	1,584 (26)	2,370 (50)	2,750 (16)	3,200 (16)
India's trade balance	319	289	-325	-247	-694

Note: The percentage change from the previous year is shown in brackets.

Source: Statistical services of the European Communities, Luxembourg.

Difficult exercise

In 1981 India's exports to the Federal Republic of Germany rose by 13 per cent to \$ 560 million, to Belgium by 18 per cent to \$ 226 million and to Italy by 8 per cent to \$ 230 million. On the other hand, exports to France fell by 9 per cent to \$ 250 million and to the Netherlands by 7 per cent to \$ 110 million.

It is very difficult on the basis of these figures to say how India's exports to the EEC will fare globally over the next four or five years. It is impossible to extrapolate the figures for 1976/80, given the considerable variations over this period.

What these figures suggest, however, is that the virtually stagnant conditions of the Common Market economies have not seriously affected Indian exports. In fact the Community's imports from all sources more than doubled between 1975 and 1980 in value terms. But much of this increase can be attributed to higher oil prices and inflation, for the increase in volume terms was much smaller.

Pending a sustained economic recovery, demand for industrial raw materials, for example, is unlikely to grow as rapidly as developing countries would

have prevented a fall in consumer demand. But the burden of such payments is proving too great for all Common Market countries and everywhere there are either plans to reduce them or cuts have already been made. (Even where the level of payments remains unchanged, civil servants are being instructed to hold up payments as far as possible.)

Protectionism

Governments are also looking at ways of ensuring that domestic spending is on locally-made products as far as possible. The obvious way to ensure that unemployment benefits are not squandered on handloom shirts — or Japanese hi-fi equipment — is to restrict their imports. A first step in this direction is the campaigns such as "Buy British" or the French campaign which seeks to "reconquer" the home market for domestic producers.

There are growing attempts to justify protectionism on both economic and social grounds. It is being argued that Europeans cannot be expected to give up the economic and social gains of the last 100 years — e.g. dismantle their social security systems or reduce the level of

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wages. To the extent their high cost economy makes it very difficult for Europeans to compete successfully against "low-cost" producers in developing countries, the only solution is to end such competition by shutting out "low-cost" imports.

Protectionism by any other name is protectionism, of course. And while most Common Market governments — and the European Commission — remain opposed to an all-embracing protectionism, they are under growing pressure to restrict imports from countries with different social and economic standards. How far they will be able to resist such pressures remains to be seen; all the evidence points, however, to more rather than less protectionism.

Numerous possibilities

India, obviously, must join other developing countries in resisting the protectionist tide. But it must also look for the numerous possibilities which the EEC offers its exporters. That these opportunities exist is clear from the performance of the highly export-oriented countries of the Far East. In 1980 Hongkong exported twice as much to the Community as India, while both Taiwan and South Korea ranked ahead of her among the EEC's major suppliers. (Incidentally, the last two were nowhere on the list in 1958, when the EEC was set up.)

Given present trends, it is the more successful Far Eastern exporters who are likely to be the most severely penalised by the EEC over the next four or five years. This does not mean that Indian exporters will have the field to themselves; the fact is that a growing number of developing countries are trying to secure a foothold in the European market, especially for their exports of semi-manufactured and manufactured products.

The extent to which India can develop its exports will depend on their composition. Table 2 shows India's main exports to the EEC, grouped by categories, based on the SITC, Revision 2.

What prospects?

What are the prospects for increased exports of the products listed above? The prospects are virtually nil in the case of sugar, now that the Community has withdrawn the quota for 25,000 tonnes allocated to India. The fact is that virtually the only imports are under the

Table 2 : India's principal exports to the EEC, 1978-80
(in million ECU⁺)

	1978	1979	1980
Shrimps	9.2	17.0	20.9
Cashew nuts	10.3	14.9	15.2
Sugar	12.7	39.3	29.2
Coffee	17.7	17.3	12.3
Tea	93.5	119.2	150.5
Spices	19.3	11.2	8.3
Oilcakes	63.8	128.4	91.6
Tobacco, unmanufactured	71.1	74.1	60.0
Bones, other crude animal material	8.3	9.7	6.3
Vegetable saps, medicinal herbs, etc.	40.5	35.1	35.1
Castor oil	16.1	12.9	8.5
Leather	141.5	221.2	128.5
Prepared parts of footwear	7.3	13.4	19.7
Handbags, travel goods	12.6	12.0	13.9
Footwear	8.3	9.4	22.4
Cotton, other textile yarns	15.6	19.0	20.2
Cotton fabrics, excluding special fabrics	62.1	100.0	88.7
Jute and other woven textile fabrics	34.0	35.3	41.5
Jute bags, household linen, etc.	43.6	45.3	76.8
Clothing	184.9	245.4	299.6
Carpets	87.7	112.2	128.8
Cut diamonds, other stones	304.6	200.2	182.6
Handtools, door fittings, metal statues, etc.	45.9	56.9	61.0
Metal-cutting machine tools, pumps, mechanical handling equipment, office machines, spares for above	22.5	22.5	23.1
Sound equipment, electrical equipment	24.9	14.9	7.5
Sports goods, art works, imitation jewellery, etc.	20.3	26.6	25.9

N.B. The ECU or European Currency Unit is a "basket" unit, based on a certain quantity of each Community currency. It therefore gives a more accurate picture of EEC trade flows than the US dollar. In 1980 the ECU was equal to \$ 1.40.

Source: Statistical Office of the European Communities.

preferential arrangements concluded with the Lome Convention countries and India. The EEC has a surplus of some 3 million tonnes and very high import duties (in the form of a variable levy).

The situation is more promising as regards tea, especially if India develops its exports of packaged tea. This is likely to prove a slow and costly process, however, although it might be speeded up through the purchase of European blending and packaging firms — or at the very least the creation of a marketing subsidiary, based over here, by the TTCL, for example.

The constraints on India's exports of shrimps, cashew nuts and coffee seem to be one of supply. The GSP tariff on shrimps and prawns is 6 per cent, even so in 1980 only 65 per cent of the exports were under GSP. The tariff on cashew nuts is zero, and on unroasted coffee it is 5 per cent.

Given the large population of Asian origin now established in the EEC — and the greater readiness on the part of Europeans to sample Asian cooking — the market for spices is certain to grow. The tariff on several spices, including curry powder, turmeric, coriander and

cardamoms has been set at zero and that on pepper at 4 per cent (under the GSP).

Demand for cattle feed of all kinds is continually rising, with importers continuously looking for new sources of supply. There is no duty on oil cakes and products of vegetable origin for animal feed. As for unmanufactured tobacco, India's exports are stagnant largely, it would seem, because the varieties currently available are unsuitable for the large German market. (Most exports are to the UK).

Manufactured products

Of the manufactured products exported by India, two product groups account for the lion's share: textiles and clothing, on the one hand, and cut diamonds on the other. To take diamonds first. The rapid expansion in Indo-EEC trade in diamonds (which is largely between India and the Benelux countries) is one of the major success stories of the last decade. But both the supply of uncut stones and the demand for cut stones is outside the control of India's diamond traders, however astute they may have proved themselves in the cutting and marketing of small stones.

The situation is very different again regards textiles and clothing. The EEC determined to freeze — and even cut back — over the next four years its imports of fabrics and such garments as T-shirts, shirts and trousers, and to limit the growth of other garments and of made-up goods. Although India is not directly threatened with cutbacks, the growth rates proposed by the Community are very low for the most promising items.

But are Indian textile manufacturers in a position to expand their exports to the EEC? They have done very well in recent years as regards carpets and other floor coverings. And exports of jute goods have picked up. But the picture is much less encouraging as regards cotton fabrics and garments, especially if one looks at the rate of quota utilisation in 1981.

Table 3, based on Indian sources, shows the utilisation rates for the more important quotas:

Demand for finished leather is likely to expand; and so is the demand for leather goods, including travel goods, gloves and footwear. But this is another labour-intensive sector which the EEC wants to protect from foreign competition — largely because it is labour-intensive. Tariffs on leather range between 3 to 7 per cent while those on leather goods between 7 and 12 per cent.

Given the substantial wage differential, Indian exporters should have little difficulty competing with European manufacturers. But it must be remembered that (1) this is a sector where sales are on the basis of design and quality even more than price and (2) competition among developing countries is strong and growing.

Most of the goods mentioned so far are traditional. What of metal manufactures, whether for the home, the building trade or industry? Nor should one forget the chemicals sector. India already exports a number of chemicals

Table 3 : Textiles and clothing: quota utilisation rates in 1981

Category 1 — Cotton yarn	7%
Category 2 — Cotton fabrics	32%
Category 4 — T-shirts	91%
Category 6 — Trousers	86%
Category 7 — Blouses	72%
Category 8 — Men's shirts	38%
Category 9 — Kitchen linen	25%
Category 15B — Ladies' jackets	69%
Category 19 — Handkerchiefs	42%
Category 20 — Bed linen	37%
Category 26 — Dresses	91%
Category 27 — Skirts	96%
Category 29 — Ladies coordinate suits	111%
Category 30-B — Ladies' undergarments	4%
Category 39 — Table linen	7%

to the EEC but in very small amounts. Synthetic organic dyestuffs, a "major" chemical export in 1980, nevertheless amounted to under \$ 7 million.

It must be remembered that all these items enter the Common Market duty free under the GSP scheme. Of course some of them are subject to quotas, but the great majority of chemicals and engineering goods, for example, are subject only "to surveillance for essentially statistical purposes" according to the GSP regulation. This does not mean that the EEC cannot re-introduce tariffs on these products, but the likelihood is very small, especially as Indian exports of them are certain to remain relatively small in terms of the EEC's total imports.

Effective marketing

There is a tendency, especially in official circles in India, to focus on the obstacles to trade with the Community. This is inevitable, as obstacles such as tariffs, quotas and other non-tariff barriers can only be removed through negotiations at the level of governments. But as the experience of Far Eastern exporters has shown, effective marketing can overcome a good many obstacles.

Over the years New Delhi has set up the machinery needed to promote exports to the EEC. It has opened a Trade Centre in Brussels, posted commercial representatives to its embassies in the Common

Market capitals and asked the more important export promotion councils to open offices in Western Europe. Indian officials have tried to make the most of the facilities offered by the European Commission under its trade promotion programme.

As a result, India has jointly financed with the EEC a number of seminars, of which the most important no doubt was that held in Paris in 1980. Its aim was to encourage European firms to join forces with Indian consultancy and engineering firms, in order to tender for projects in third countries. But trade promotion measures can only succeed — i.e. result in exports — if manufacturers and exporters take advantage of them to push their products in the EEC.

It is necessary for Indian firms to be represented in the Common Market countries on a much bigger scale and on a year-round basis. Visits by trade delegations and sales missions are necessary but unless there is a continuity in the efforts displayed by Indian industrialists and traders, success is likely to elude them.

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EXPORT STATISTICS

Compiled by COMMERCE RESEARCH BUREAU

Table 1: India's imports, exports, and trade balance: 1948-49 to 1981-82

(Rs. crores)

Year	Imports		Exports		Trade balance	India's exports as per cent of world exports
	Amount	Percentage variation	Amount	Percentage variation		
1948-49	570		402		-168	2.4
1949-50	530	-7.0	458	13.9	-72	2.2
1951-52	650	22.6	601	31.2	-49	2.0
1951-51	970	49.2	733	22.0	-237	2.1
1952-53	702	-27.6	577	-21.3	-125	1.7
1953-54	610	-13.1	530	-8.1	-80	1.5
1954-55	656	7.5	592	11.7	-64	1.5
1955-56	774	18.0	609	2.9	-165	1.5
1956-57	841	8.7	604	-0.8	-237	1.3
1957-58	1,085	29.0	561	-7.1	-524	1.4
1958-59	906	-16.5	581	3.6	-325	1.3
1959-60	961	6.0	640	10.2	-321	1.3
1960-61	1,122	16.8	642	0.3	-480	1.2
1961-62	1,090	-2.9	660	2.8	-430	1.2
1962-63	1,131	3.8	685	3.8	-446	1.1
1963-64	1,223	8.1	793	15.8	-430	1.2
1964-65	1,349	10.3	816	2.9	-533	1.1
1965-66	1,409	4.4	806	-1.2	-603	1.0
1966-67	2,078	47.5	1,157	43.5	-921	1.1
1967-68	2,008	-3.4	1,199	3.6	-809	0.8
1968-69	1,909	-4.9	1,358	13.3	-551	0.8
1969-70	1,582	-17.1	1,413	4.1	-169	0.7
1970-71	1,634	3.3	1,535	8.6	-99	0.7
1971-72	1,824	11.6	1,608	4.8	-216	0.6
1972-73	1,867	2.4	1,971	22.6	+104	0.6
1973-74	2,955	58.3	2,523	28.0	-432	0.6
1974-75	4,520	53.0	3,331	32.0	-1,189	0.5
1975-76	5,265	16.5	4,036	21.2	-1,229	0.5
1976-77	5,074	-3.6	5,146	27.5	+72	0.6
1977-78	6,025	18.7	5,404	5.0	-621	0.6
1978-79	6,814	13.1	5,726	6.0	-1,088	0.6
1979-80	9,022	32.4	6,459	12.8	-2,563	0.5
1980-81	12,524	38.8	6,711	3.9	-5,813	0.4
1981-82	13,346	7.0	7,560	13	-5,886	0.4

Annual rate of increase
(per cent) between

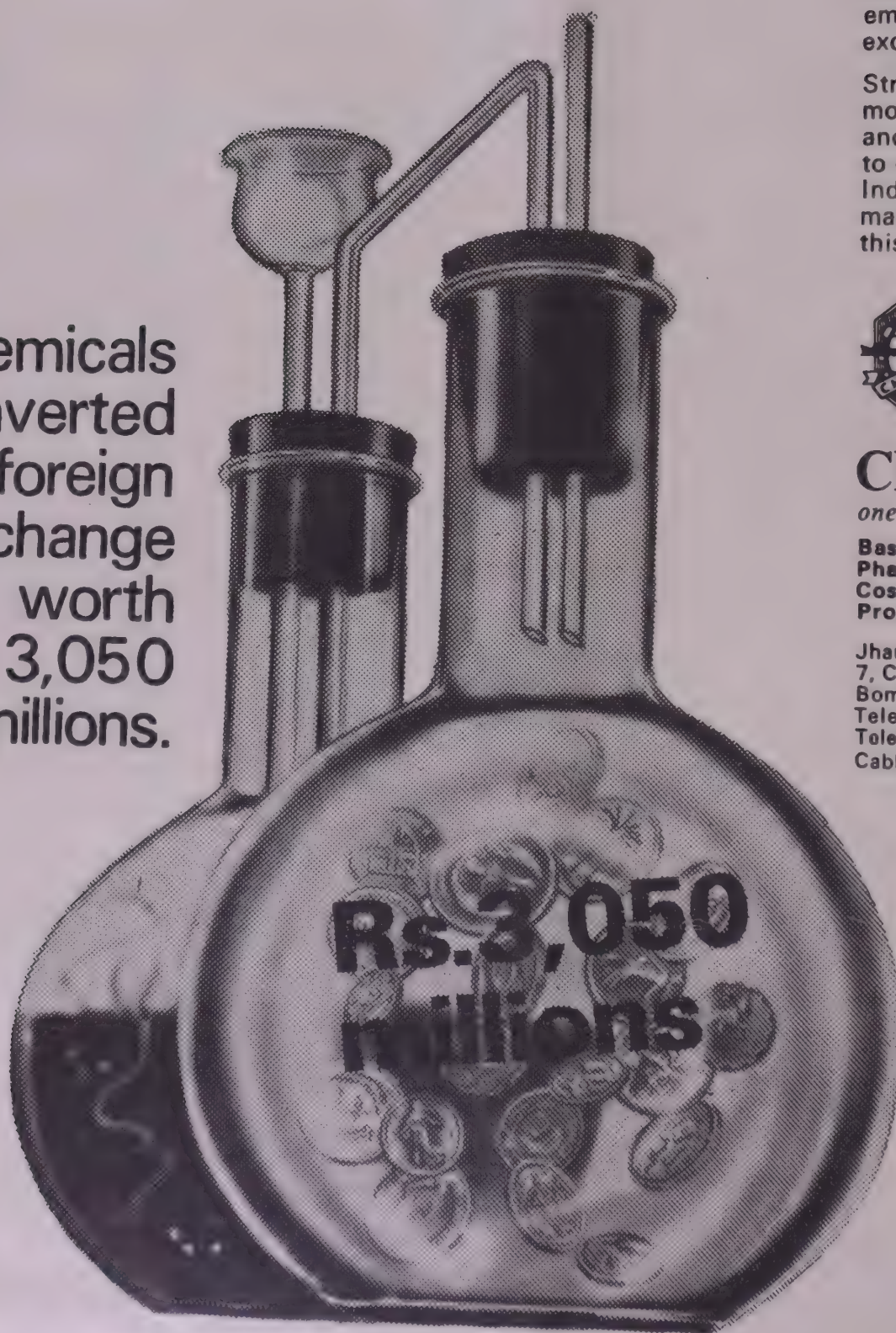
1948-49 and 1973-74
1973-74 and 1981-82
1948-49 and 1981-82

6.8
20.5
10.0

7.6
14.3
9.2

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Table 2: Commodity composition of India's export: 1979-80 to 1981-82

(Rs crores)

	Unit of quantity	1979-80		1980-81		1980		April-September 1981		
		Quantity	Value	Quantity	Value	Per cent to total	Quantity	Value	Quantity	Value
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Live animals chiefly for food	Value	...	3.09	...	8.18	0.12	..	4.62	...	3.10
Meat and meat preparations	Value	...	41.34	...	54.66	0.81	...	24.08	...	26.10
Fish, crustaceans, molluscs and preparations thereof	'000 tonnes	76.6	249.43	76.0	223.66	3.34	27.6	90.68	29.4	120.35
Tea	'000 tonnes	515.3	128.31	491.7	155.98	2.32	143.8	43.70	383.3	146.21
Spices	'000 tonnes	429.2	56.55	76.6	18.44	0.27	53.0	6.93	...	...
Cereals preparations, preparations of flour and starch of fruits and vegetables	Value	...	9.86	...	7.12	0.11	...	4.18	...	3.56
Vegetables and fruits:										
Cashew kernels	'000 tonnes	38.0	118.10	28.4	123.21	1.84	16.9	72.86	23.5	105.57
Others	Value	..	63.54	...	84.46	1.26	...	39.09	...	40.91
Sugar and sugar preparations	'000 tonnes	568.2	128.94	71.5	35.96	0.54	25.5	10.03	25.7	15.30
Sugar and coffee substitutes	Mill kg	61.8	163.31	88.2	225.01	3.35	43.6	125.16	37.2	68.81
Tea and mate	Mill kg	203.7	367.84	195.5	385.16	5.74	75.3	144.53	100.2	180.20
Spices	'000 tonnes	110.1	149.37	78.4	106.18	1.58	42.2	53.12	32.5	37.83
Oil cakes	'000 tonnes	1,034.0	127.53	813.7	109.24	1.63	347.3	44.40	415.1	59.83
Tobacco unmanufactured										
Tobacco refuse	'000 tonnes	75.0	102.25	77.8	122.55	1.83	47.6	75.89	63.2	107.13
Oilseeds and oleaginous fruits	Value	...	26.50	...	48.60	0.72	...	7.15	...	1.83
Cotton, raw	'000 tonnes	65.6	75.10	105.3	129.64	1.93	45.7	55.39	19.2	16.28
Silk, raw	Value	...	..	...	0.01	—	...	...	...	0.05
Wool, raw	'000 tonnes	...	0.09	...	0.02	—	...	0.01	...	...
Wool, raw	'000 tonnes	5.8	1.77	8.3	2.73	0.04	0.4	0.17	15.2	4.73
Iron ore	Mill tonnes	24.8	285.24	26.2	289.41	4.31	9.8	139.28	8.7	119.03
Manganese ore	'000 tonnes	626.7	13.15	601.5	13.78	0.21	228.4	5.39	93.1	1.87
Mica	Mill kg	18.7	20.58	17.8	18.21	0.27	6.3	8.67	12.8	18.0
Dress, minerals other than iron ore, manganese ore and mica	Value	...	54.06	...	59.39	0.89	...	31.05	...	7.18
Waste and scrap metal of iron or steel	Value	...	1.41	...	1.62	0.02	...	0.04	...	0.22
Stone, sand and gravel	Value	...	18.68	26.28	0.39	...	...	14.00	...	61.58
Shellac, seed lac, gums, resins and balsams	'000 tonnes	18.0	23.59	20.3	18.01	0.27	6.1	8.41	15.4	14.84
Fixed vegetable oils and fats, non-essential	'000 tonnes	43.1	41.50	12.2	13.11	0.20	7.2	7.73	3.6	4.83
Crude animal materials	Value	...	31.76	...	30.47	0.46	...	15.74	...	13.25
Crude vegetable materials	Value	...	86.53	...	66.01	0.98	...	53.28	...	77.10
Cotton yarn	Mill kg	5.9	15.17	9.6	26.61	0.40	3.5	9.56	2.5	7.39
Yarn of man-made fibres	Value	...	4.52	...	14.09	0.21	...	6.50	...	1.66
Cotton fabrics	Mill sq mt	553.8	287.40	551.4	293.84	4.38	230.0	130.06	162.0	119.52
Silk fabrics	Value	...	19.25	...	17.34	0.26	...	9.08	...	4.23
Fabrics of man-made fibres	Value	...	32.40	...	47.66	0.71	...	16.55	...	18.50
Woollen fabrics	Value	...	3.22	...	3.27	0.05	...	1.56	...	2.54
Made-up articles wholly or chiefly of cotton	Value	...	77.98	...	96.86	1.44	...	43.08	...	46.49
Tulle, lace etc. and other small wares except of jute	Value	...	8.47	...	15.90	0.24	...	5.78	...	3.04

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Table 2 (Contd.)

Readymade garments	Value	...	459.67	...	480.97	7.17	...	190.36	...	262.89
Other manufactures	Value	...	36.55	...	17.71	0.26	...	9.41	...	11.27
Textile manufactures including twist and yarn	Lakh tonnes	5.0	336.13	3.2	243.26	3.63	1.7	153.49	1.1	134.14
Carpets, mill-made	Value	...	5.49	...	9.23	0.14	...	3.36	...	8.88
Hides and skins (except fur skins), raw	Value	13.7	0.59	...	0.61	0.01	...	0.35	...	0.27
Footwear	Mill Pairs	13.7	33.89	12.9	34.75	0.52	6.4	16.62	5.2	12.13
Leather and leather manufactures (except footwear)	Value	...	485.56	...	341.24	5.09	...	147.39	...	177.37
Handicrafts:										
Pearls, precious and semi-precious stones etc.	Value	...	518.95	...	542.46	8.09	...	106.06	...	252.96
Works of art	Value	...	105.50	...	109.04	1.63	...	54.94	...	65.66
Carpets, hand-made	Value	...	139.76	...	140.31	2.09	...	63.97	...	87.19
Jewellery	Value	...	24.15	...	15.64	0.23	...	7.44	...	5.38
Metal manufactures except iron and steel	Value	...	216.58	...	208.81	3.11	...	95.95	...	81.60
Iron and steel	Value	...	105.22	...	82.33	1.23	...	35.12	...	33.58
Silver	'000 kg	11.3	2.16	...	...	...	...	...	...	...
Machinery including transport equipments	Value	...	447.33	...	494.06	7.36	...	251.58	...	280.37
Mineral fuels, lubricants and related products	Value	...	21.21	...	25.88	0.39	...	13.90	...	12.10
Essential oils, perfumes and flavouring materials	Value	...	7.73	...	5.95	0.09	...	3.31	...	2.74
Chemicals and allied products	Value	...	197.81	...	209.84	3.13	...	113.77	...	157.62
Plastic and plastic manufactures	Value	...	17.59	...	17.60	0.26	...	9.62	...	8.77
Tobacco, manufactured	Mill Kg	9.8	11.28	11.6	15.59	0.23	5.8	7.45	8.3	12.48
Rubber and rubber manufactures	Value	...	21.07	...	13.02	0.19	...	11.62	...	15.03
Paper and paper-board and articles thereof	'000 tonnes	5.0	5.30	4.5	5.41	0.08	2.5	2.70	2.7	2.85
Glass and glassware	Value	...	17.77	...	14.86	0.32	...	9.44	...	9.32
Wood, cork and manufactures thereof	Value	...	27.84	...	11.43	0.17	...	10.72	...	8.92
Cement	'000 tonnes	44.8	2.60	28.6	1.61	0.02	15.3	0.81	0.6	0.05
Asbestos, cement articles	Value	...	4.74	...	3.56	0.05	...	1.82	...	2.10
Bricks, etc.	Value	...	4.74	...	6.15	0.09	...	1.65	...	1.28
Mineral manufactures	Value	...	15.51	...	11.50	0.17	...	6.42	...	11.50
Sanitary, plumbing etc. fixtures and fittings	Value	...	3.54	...	4.14	0.06	...	2.47	...	1.82
Travel goods, etc.	Value	...	15.71	...	17.14	0.26	...	6.46	...	11.52
Cinematographic films exposed etc.	Value	...	11.96	...	12.01	0.18	...	5.38	...	6.81
Printed matter	Value	...	7.13	...	6.68	0.10	...	3.18	...	11.46
Sports goods, etc.	Value	...	18.28	...	20.19	0.30	...	10.43	...	10.36
Grand total including other items and re-exports			6,458.77		6,708.84	100.00		2,843.27		3,326.45

Notes: (...) = Not available (—) = Nil or negligible.

Table 3: Exports of major commodities/commodity groups: 1970-71 to 1980-81

(Rs crores)

	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81
Engineering goods	116	125	141	193	349	408	552	624	717	737	900
Gems & Jewellery	38	47	72	105	103	130	264	469	727	599	639
Ready-made garments	30	38	56	100	138	203	333	330	456	499	481
Tea	148	156	147	146	228	237	293	570	341	368	385
Leather & leather products	72	91	175	172	145	202	264	248	328	486	341
Cotton fabrics	95	100	127	240	215	216	277	234	224	287	294
Iron ore	117	105	110	133	160	214	239	241	233	285	289
Jute	189	263	247	226	294	248	201	245	166	336	243
Coffee	25	22	33	46	51	67	126	194	144	163	225
Fish	31	41	54	88	65	126	179	171	221	249	224
Total of these 10 commodities	861	988	1,162	1,449	1,748	2,051	2,728	3,326	3,557	4,009	4,021
As per cent of total exports	56	61	59	57	53	51	53	62	62	62	60

Commodities/commodity groups are arranged in terms of descending order of exports in 1980-81

COMMERCE ANNUAL 1981

A comprehensive, analytical study on

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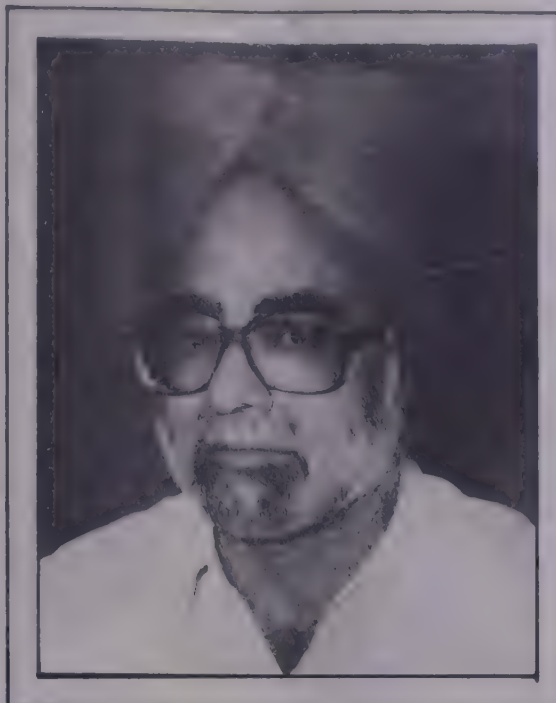
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SPECIAL REPORTS

The state's present (1981-82) annual coal requirement of 11 million tonnes is expected to rise to 32 million tonnes in 1990-91; to 52 million tonnes in 2000-2001; and to a colossal 65 million tonnes in 2005-2006. The rapidity with which the demand for coal is rising in Gujarat is going to pose a serious problem, mainly on account of inadequate transport capacity of the railways.

The growing requirements of coal of the Saurashtra region, which were envisaged to be met through coastal shipping, have proved to be a pipedream. Under these circumstances, the State Government has submitted to the Centre for clearance a scheme of coal slurry pipeline. The State Government has pleaded that this scheme should be expeditiously cleared. Also in view of long time-lag in the coal transport to Gujarat from mines in Bihar and Orissa, the State has pleaded for planning expansion of the railway network and transport capacity on a war footing.

New Governor of Reserve Bank



Dr Manmohan Singh

DR Manmohan Singh took over as Governor of Reserve Bank of India on September 16. He was Professor of Economics in the Punjab University until 1966 when he became Economic Affairs Officer and later Chief of Financing for Trade Section, UNCTAD, in the United Nations Secretariat in New York. He returned to India and was Professor of International Trade in the Delhi School of Economics in 1969-71. He joined the Government of India in 1971 as Economic Adviser to the then Ministry of Foreign Trade. From 1972 to 1976 he was the Chief Economic Adviser to the Government of India in the Finance Ministry. He was Secretary to the Government of India, Ministry of Finance, Department of Economic Affairs, from November 1976 to April 1980. Subsequently, he was the Member-Secretary of the Planning Commission.

Unofficial foreign currency rates in Hongkong as on 13-9-1982

High Low T.T.

Australian \$	5.86	5.81	5.7730
Belgian Franc (100)	12.00	11.00	12.905
British £	10.55	10.40	10.505
Burmese Kyat (100)	25.00	15.00	
Canadian \$	4.94	4.85	5.0200
French Franc	0.87	0.85	0.8750
Indian rupee (100)	55.00	49.00	64.55
West German DM	2.45	2.42	2.4775
Indonesian Rupiah (100)	0.900	0.84	
Italian Lira (100)	4.40	4.20	
Japanese Yen (100)	2.350	2.330	2.3640
Korean Won (100)	0.75	0.70	
Malaysian \$	2.600	2.55	2.6375
Netherlands Guilder	2.240	2.21	2.215
New Zealand \$	4.43	4.30	4.5310
Pakistan Rupee (100)	4.30	3.80	5.105
Philippine Peso	0.70	0.675	0.7515
Singapore \$	2.84	2.80	2.8760
South African Rand	4.50	4.00	5.3920
Sri Lanka Rupee (100)	27.00	22.00	
Swiss Franc	2.88	2.835	2.9015
Taiwan \$ (100)	14.70	14.30	
Thailand Baht (100)	26.80	26.50	

Battling for press freedom

BOMBAY

THE formation of a body "Citizens for Press Freedom", with the active support of editors of leading newspapers of Bombay, was announced here on September 9.

According to the convenor, Mr Hiranmay Karlekar, resident editor of *Indian Express*, Bombay, the organisation will have a committee to guide its efforts.

The aim of the organisation set up at a meeting here on September 8 would be to safeguard the freedom of the press from "all encroachments" and seek withdrawal of the Bihar Press Bill and repeal of the Tamil Nadu and Orissa Acts curbing the freedom of the press, Mr Karlekar said in a statement.

In a resolution, the meeting urged all persons committed to press freedom to register their protest against the Bihar Press Bill by boycotting Government media like radio and television,

and resigning from all government committees dealing with the media.

Present at the meeting were Mr R.K. Karanjia, editor of the *Daily and Blitz*; Dr Hannan Ezekiel, editor of the *Economic Times*; Mr Govind Talwalkar, editor of *Maharashtra Times*; Mr V.S. Gokhale, editor of *Loksatta*; Mr Vadilal Dagli, editor of *Commerce*; Mr Hiranmay Karlekar, resident editor of *Indian Express*, Bombay; Dr G.G. Parikh, editor of *Janata Weekly*; Mr R.K. Roy, resident editor of the *Economic Times*, Delhi; Mr A.V. Memon and Dr Shanti Patel, both former Mayors of Bombay; Mr Moinuddin Harris, former member of the Press Commission; Mr M.A. Rane and Mr C.R. Dalvi of the People's Union for Civil Liberties; Mr K.Y. Mandlik, advocate; Mr Ramu Pandit, secretary-general of the Indian Merchants Chamber; and Mr Dinesh Thakur, secretary of Naya Samaj. Mr Karlekar was unanimously elected convenor.

Company Meeting

THE TATA POWER COMPANY LIMITED

Chairman's Statement

The following is the text of the Statement of Mr. Naval H. Tata, Chairman of The Tata Power Company Limited for the year 1981-82. The Annual General Meeting will be held on Thursday, the 23rd September 1982 at 3 p.m. at the Bir'a Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, Bombay 400 020.

To,
The Members,

It gives me great pleasure to extend a very warm welcome to an enlarged family of shareholders including those from overseas.

The Year Under Review

The statutory restrictions on demand and energy which were imposed in 1974 and amended suitably from time to time, continued during the past year. The load growth was further affected on account of the general strike in the Textile Industry in Bombay, which commenced from 18th January 1982 and is still continuing at the date of this Statement. As far as your Companies are concerned, there was a reduction in energy sales estimated at 160 GWH because of this strike. Prior to this event, the availability of power in the Maharashtra Grid was seriously affected from 23rd November 1981 to 18th December 1981 on account of industrial discord in the State Electricity Board. However, the adverse effects of the shortfall in power supply was largely neutralised by maxi-

mising our hydro and thermal generation. The situation was further mitigated by rescheduling our planned outages in the interest of maintaining continuity of power supply in the Bombay Metropolitan Region. In spite of the above setbacks, we were able to maintain our energy sales for the year under review, marginally higher than in 1980-81, indicating a load growth rate of about 0.4%. Had such adverse factors not intervened a growth rate of over 3% would have been recorded, even with the present restrictions.

Power Plans

In these days of power famine when the States are unable to supply the power needs of existing and new industries, it is very gratifying to note that the Central Government has shown great concern regarding the consequences of power shortages. The Planning Commission has earmarked a substantial amount of Rs. 19,265 crores for the power sector out of the total VI Plan outlay of Rs. 97,500 crores, i.e. approximately 20%. This clearly indicates the impor-

tance and urgency with which the Planning Commission views the need for increasing power capacity in the Country. Let us hope that the State Governments spare no effort to assist the Electricity Boards as well as other Power Utilities to expand their capacities to avert power shortages in the future.

Trombay 500 MW Unit No. 5

The 500 MW expansion project at your Companies' thermal station at Trombay continued to make progress, and it is expected that the unit will be commissioned before the end of this financial year. One of the ships carrying vital high-pressure boiler piping caught fire on the high seas. The vessel was abandoned by the crew and the engines were immobilised. Fortunately, our consignment was not damaged being in one of the rear holds. Arrangements are being made for the discharge and transshipment of our consignment. The non-availability of these components for High Pressure Piping Systems for six

months is likely to cause a delay in the erection work. Strenuous efforts are being made to make good the lost time so that the scheduled commissioning date can be met.

Training

I am happy to report that the Ministry of Energy and the Department of Electronics have fully endorsed our view and have approved installation of the 500 MW computer-based training simulator at Trombay. Besides meeting the demands of our operational staff, we hope to train engineers from other utilities in India and abroad. This is in continuation of our present efforts on the 150 MW thermal power plant simulator at Trombay, on which over 900 engineers from other utilities and organisations have been trained so far.

The 1982 Monsoon

The rain gods are always unpredictable, but this year their benevolence has been even less than normal. From the current trend, it appears that the hydro storages by the beginning of the dry season

will be less than 60% as against 80% normally anticipated. Consequently, the storage of over 450 GWH of energy due to weak precipitation will have to be made good by maximising thermal generation in the System.

Fuel Costs

In my Statement last year, I had dwelt on the agonising problem of increasing fuel costs. The differential between the cost of equivalent residual fuel oil from the refineries and that of coal has been steadily increasing. The equivalent differential cost prior to 1973 was barely Rs. 20 per tonne. In 1979, this differential spiralled to about Rs. 650 per tonne, whereas today it has increased to nearly Rs. 1900 per tonne. While it is granted that the cost of residual fuel oil should bear a relationship with international crude prices, the large divergent differential particularly in respect of residual refinery products like LSHS, has caused lopsided fuel economics. On the one hand, to increase the throughput of the Bombay refineries for processing the Bombay High crude, there is a need for increased offtake of these residual fuels, which are the lower distillates in the fractionating process. But on the other hand, a vastly unrelated cost differential puts a burden on the electricity consumer in terms of increased Fuel Adjustment Charges.

Switching over totally to coal burning in the interest of reducing the consumer cost burden would have adverse repercussions on refinery operations and products which are presently in surplus. For these lower distillates, other markets have yet to develop. The refineries and the Trombay thermal station were located in the vicinity of one another to optimise mutually their operations. However, the lopsided cost differential between residual refinery fuels and coal tends to strain the operational and situational logic of earlier investments. There is an obvious need for evolving a rational and realistic fuel policy for thermal stations.

In this connection, I had made a suggestion in my Statement last year that, since power generated by the multi-fuel fired thermal units at Trombay results in benefits to the entire Maharashtra State Grid, it is desirable in the larger interests of the consumers, to consider a proposal for a uniform fuel adjustment cost in the State. It would also remove the present anomaly of consumers in the same neighbourhood having different rates as Fuel Adjustment Charges. I am sure that this suggestion, which is fair and equitable and in the interest of stabilisation of Fuel Adjustment costs, will receive support in the right quarters.

Alternate Energy Sources

With depleting fossil fuels, we shall have to be in constant search for commercially viable new energy alternatives from replenishable sources.

Towards this end, we have made a modest beginning by commissioning a pilot biogas plant at our Trombay housing colony. About 80 families in the colony are expected to meet their domestic cooking needs from this gas. The fertiliser will be used to enrich the soil of the wooded areas/gardens in the colony.

The country is committed to an accelerated programme of agricultural growth and rural development. For large agricultural pumping loads, it will be desirable to study the comparative merits of providing centrally generated electricity against re-cycled non-conventional energy resources, viz. mini and micro hydel schemes, biogas/gobar gas plants, windmills and solar energy which is in abundance.

Water Conservation

As an insurance in low rainfall years, it is also worthwhile considering the setting up of desalination plants along the vast Indian coast-line to augment the municipal potable water supply to cities on the coast. Various desalination plants have been established in the Gulf countries and the availability of salt-free water has helped to

make the desert bloom. We have been partly associated with such a project while working on the Jeddah III thermal power station. This technology will relieve the sole dependence on potable water from monsoon precipitation in conventional built-up storages and natural lakes.

Consumer Relations

The management of power shortages through judicious distribution is best executed after consultations and in close co-operation with the industries concerned. In this respect, our consumers enjoy our confidence and we are indeed grateful to them for their continued and understanding co-operation in a disciplined manner during periods of crisis.

Relations with the Government and the State Electricity Board

I will be failing in my duty if I were not to place on record my sincere thanks to the Government of Maharashtra whose continued support to our 500 MW Unit at Trombay now under erection has been a source of great inspiration to us. We wish to assure the Chief Minister, and his colleagues that we will continue to play our rightful role as an integral part of the Maharashtra power system, to maintain the prestige and reputation of Maharashtra as a premier industrial state.

(Continued on page 463)

CORPORATE SECTOR

In the market

Pfizer

Pfizer Ltd (Registered office: Express Towers, Nariman Point, Backbay Reclamation, Bombay 400 021) is offering for public subscription 5,58,100 equity shares of Rs 10 each (at a premium of Rs 8 per share) totalling Rs 55.81 lakhs. Apart from this 5,58,100 equity shares of Rs 10 each (at a premium of Rs 8 per share) totalling Rs 55.81 lakhs have been agreed to be subscribed by financial institutions and 5,58,100 equity shares of Rs 10 each (at a premium of Rs 8 per share) totalling Rs 55.81 lakhs are being offered for subscription as right shares to the existing shareholders of the company. The subscription list will open on October 5 and will close on October 14 or earlier but not before October 7.

Pfizer, which is a part of the multinational company Pfizer Inc, is among the top three in the Indian pharmaceutical industry. Its sales amounted to Rs 48 crores during the year ended November 30, 1981. Pfizer presently has two production facilities in India — at Chandigarh near Delhi and at Thane in Maharashtra. The company has a diversified product range: pharmaceuticals, animal health products, nutritional & health care products and pharmaceutical chemicals.

The prospects for the investors are excellent according to Mr S. V. Pillai, chairman and managing director. Satisfactory rates of growth in sales and profits, an uninterrupted record of dividend payments and three bonus issues in 1968, 1972, and 1977 characterised Pfizer's performance in the recent past.

The company has received a letter of intent for undertaking substantial expansion of the capacity for the manufacture of morantel tartrate and purantel pamoate and their formulations. The company has already commenced construction work at Kalyani, a notified backward area, in Nadia district of West Bengal. The new products are scheduled to be launched by the middle of 1984. The total cost of the project is estimated at around Rs 9.3 crores, of which rupees three crores will come from the capital issue and the balance from internal sources.

Ranbaxy Laboratories

Ranbaxy Laboratories Ltd (Registered Office: A-11, Industrial Area, Sahi-

bagada, Ajit Singh Nagar 160 055 Ropar, Punjab) is offering for public subscription at par 2.25 lakh, 13.5 per cent secured convertible debentures of Rs 200 each totalling Rs 4.50 crores. The subscription list opened on September 15 and will close on September 29 or earlier but not before September 20.

Other developments

Patni Computers starts operations

PCS Data Products (P) Ltd, a wholly owned subsidiary of Patni Computer Systems (P) Ltd, has commenced manufacture of computer systems in India compatible with Data General Eclipse and Nova series under an exclusive technical collaboration arrangement with Data General Corporation. Work has commenced on the company's first computer being manufactured under the arrangement and is to be delivered to NOCIL by October. According to Mr Ashok Patni, director, Patni Computer Systems, PCS Data Products (P) Ltd has been licensed to manufacture 30 systems in the first year and 50 in the next. Plans for the third year will depend on the company's performance in the first two years. The import content in the computers manufactured will be 70 per cent to begin with and brought down to 50 per cent.

PCS Data Products Ltd sells systems in the range of Rs 50 lakhs to Rs 80 lakhs and will manufacture both large and small systems. To strengthen its technical support services it plans to set up regional technical centres at Bangalore, Madras, Calcutta and Delhi. Already a number of systems had been sold to Indian Explosives, Telco, Tube Investments and Rallies.

Forthcoming company meetings

SEPTEMBER 18 TO SEPTEMBER 24

HINDUSTAN MOTORS LTD, Birla Building, 9/1, R N Mukherjee Road, Calcutta 700 001. (September 20, 3 p.m.)

MACHINERY MANUFACTURERS' CORPN LTD, Regal Room, Oberoi Towers, Marine Drive, Nariman Point, Bombay 400 021. (September 20, 4 p.m.)

SESHASAYEE PAPER & BOARDS LTD, Pallipalayam, Cauvery R.S.P.Q, Salem District, Tamil Nadu. (September 22, 10 a.m.)

POLYCHEM LTD, Walchand Hirachand Hall, 76, Veer Nariman Road, Churchgate, Bombay 400 020. (September 22, 4.30 p.m.)

REMINGTON RAND OF INDIA LTD, Main Hall, Bengal Chamber of Commerce & Industries, Netaji Subhas Road, Calcutta 700 001. (September 22, 11.30 a.m.)

NIRLON SYNTHETIC FIBRES & CHEMICALS LTD, Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, Bombay 400 020. (September 22, 4 p.m.)

ACC — BABCOCK LTD, Board Room, Associated Cement Companies Ltd, 121, Maharshi Karve Road, Bombay 400 020. (September 22, 3.30 p.m.)

METTUR CHEMICAL & INDUSTRIAL CORPN LTD, Mettur Dam R S, Salem Dist, Madras 636 402. (September 23, 3 p.m.)

JYOTI LTD, Industrial Area, Post Chemical Industries, Vadodara 390 003. (September 23, 3.30 p.m.)

TATA POWER COMPANY LTD, Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, Bombay 400 020. (September 23, 3 p.m.)

DHRANGADHRA CHEMICAL WORKS LTD, Dhrangadhra, Gujarat State, (September 23, 12 noon)

CALCUTTA ELECTRIC SUPPLY CORPN (INDIA) LTD, Main Hall, Bengal Chamber of Commerce & Industry, Royal Exchange, 6, Netaji Subhas Road, Calcutta 700 020. (September 24, 3.30 p.m.)

RANE (MADRAS) LTD, Connemara Hotel, Binny Road, Madras 600 002. (September 24, 3.30 p.m.)

ANDHRA VALLEY POWER SUPPLY CO LTD, Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, Bombay 400 020. (September 24, 3 p.m.)

TATA HYDRO-ELECTRIC POWER SUPPLY CO LTD, Birla Matushri Sabhagar, 19, Sir Vithaldas Thackersey Marg, Bombay 400 020. (September 24, 3.15 p.m.)

Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rupees in Lakhs)

Name of Company	Bombay Burmah Trading Corpn.		E.I.D. Parry (India)		Hoechst Dyes & Chemicals		Killick Nixon		Shaw Wallace & Company	
Industry group	Trade & Commerce		Trade & Commerce		Trade & Commerce		Trade & Commerce		Trade & Commerce	
Item	Year ended September		Year ended December		Year ended December		Year ended November		Year ended December	
	1980	1981	1980	1981	1980	1981	1980	1981	1980	1981
Liabilities (at the end of the year)										
1. Net worth (i+ii)	1,055.8	1,150.2	524.9	855.4	558.6	628.2	219.9	196.5	1,155.3	1,279.3
(i) Paid-up capital (a+b)	551.7	551.7	668.1	668.1	252.0	252.0	125.0	125.0	475.0	675.0
(a) Equity	551.7	551.7	628.1	628.1	252.0	252.0	125.0	125.0	400.0	600.0
(b) Preference	—	—	40.0	40.1	—	—	—	—	75.0	75.0
(ii) Reserves	504.1	598.5	—143.2	187.3	306.6	376.2	94.9	71.5	680.3	604.3
2. Borrowings (i+ii)	429.0	415.5	1,303.8	1,571.7	170.0	274.1	163.7	178.3	324.7	325.7
(i) Long-term	9.3	6.1	438.6	950.8	—	—	86.3	103.0	75.0	75.0
(ii) Short-term	419.7	409.4	865.2	620.9	170.0	274.1	77.4	75.3	249.7	250.7
3. Non-current liabilities and provisions	58.1	64.9	—	47.5	—	—	—	—	—	—
4. Current liabilities and provisions	514.5	434.8	3,064.4	3,210.8	829.5	1,039.6	432.8	539.4	1,492.7	1,650.4
Assets (at the end of the year)										
5. Gross fixed assets	1,109.4	1,160.8	2,466.9	2,395.4	161.4	191.6	96.0	100.1	557.0	652.5
6. Less depreciation	524.9	561.4	1,513.3	1,590.7	81.6	88.1	63.2	65.2	348.0	376.0
7. Net fixed assets (5-6)	584.5	599.4	953.6	804.7	79.8	103.5	32.8	34.9	209.0	276.5
8. Current assets (i+ii+iii)	1,214.9	1,228.2	3,823.8	4,765.0	1,478.3	1,838.4	757.1	852.8	2,567.2	2,782.4
(i) Inventories	431.7	349.9	1,567.9	1,956.7	403.2	583.8	170.4	210.5	800.4	897.3
(ii) Receivable and loans and advances	599.1	721.4	1,642.9	2,121.1	927.3	1,134.6	427.2	487.0	1,055.4	1,320.4
(iii) Others	184.1	156.9	613.0	687.2	147.8	120.0	159.5	155.3	711.4	564.7
9. Other assets	258.0	237.8	115.7	115.7	—	—	26.5	26.5	196.5	196.5
Total: Liabilities (1 to 4) or Net assets (7 to 9)	2,057.4	2,065.4	4,893.1	5,685.4	1,558.1	1,941.9	816.4	914.2	2,972.7	3,255.4
Value of production and other income										
10. Sales/income net of excise duty, discounts and selling commission	1,625.2	1,619.6	14,165.1	18,548.7	6,296.9	8,491.0	1,007.1	1,101.0	11,256.9	13,618.4
11. Increase in stock of finished goods and work in progress	23.3	—42.7	482.2	465.4	16.2	190.3	8.6	37.4	—102.1	48.5
12. Value of production (10+11)	1,648.5	1,576.9	14,647.3	19,014.1	6,313.1	8,681.3	1,015.7	1,138.4	11,154.8	13,666.9
13. Other income	182.0	159.0	535.4	658.2	44.5	69.8	111.1	133.8	139.8	194.3
Expenditure										
14. Materials, stores and other mfg. expenses	680.2	696.5	12,511.9	16,796.5	5,827.4	8,089.0	6,756.2	886.1	9,431.2	11,649.2
15. Current repairs	40.5	33.4	192.1	180.0	2.6	4.1	2.2	4.4	26.2	52.7
16. Salaries and wages	445.2	483.4	700.8	771.6	115.4	128.7	156.0	184.2	702.0	812.9
17. Welfare expenses	56.6	71.4	59.7	65.9	11.0	12.8	11.3	14.8	54.7	65.5
18. managerial remuneration	—	—	—	—	0.3	0.3	—	—	0.3	0.1
19. Other expenses	297.1	251.9	1,095.7	1,091.2	168.8	242.7	121.7	140.7	591.0	613.8
20. Depreciation	47.4	46.5	123.7	118.5	6.9	6.8	2.0	2.5	30.6	29.9
21. Other provisions	—	—	—	47.5	—	—	—	2.8	—	—
22. Operating profit (12+13)-(14 to 21)	263.5	152.8	498.8	601.1	225.2	266.7	77.4	36.7	458.6	637.1
23. Interest	67.8	88.2	265.2	303.3	8.2	29.4	44.9	55.3	44.0	53.2
24. Tax provision	107.5	18.9	—	—	161.3	176.1	25.0	—	255.5	352.5
25. Profit after tax (22-23-24)	88.2	45.7	233.6	297.8	155.7	61.2	7.5	—18.6	159.1	231.4
Appropriations										
26. Dividends (i+ii)	99.3	55.2	—	—	40.3	42.8	—	—	83.6	123.6
(i) Equity	99.3	55.2	—	—	40.3	42.8	—	—	80.0	120.0
(ii) Preference	—	—	—	—	—	—	—	—	3.6	3.6
27. Profit retained (25-26)	—11.1	—9.5	233.6	297.8	15.4	18.4	17.5	—18.6	75.5	107.8
Total: Value of production & other income (12+13) or Expenses and appropriations (14 to 22)	1,830.5	1,735.9	15,182.7	19,672.3	6,357.6	8,751.1	1,126.8	1,272.2	11,294.6	13,861.2
Operational Indicators (per cent)										
(a) Net worth/total net assets	51.3	55.7	10.7	15.0	35.9	32.3	26.9	21.5	38.9	39.3
(b) Inventories/net sales	26.6	21.6	11.1	10.5	6.4	6.9	16.9	19.1	7.1	6.6
(c) Operating profit/net sales	16.2	9.4	3.5	3.2	3.6	3.1	7.7	3.3	4.1	4.7
(d) Operating profit/total net assets	12.8	7.4	10.2	10.6	14.5	13.7	9.5	4.0	15.4	19.6
(e) Profit after tax/net worth	8.4	4.0	44.5	34.8	10.0	9.7	3.4	—	13.8	18.1
(f) Equity earning/equity capital	16.0	8.3	37.2	47.4	22.1	24.3	6.0	—	38.9	38.0
(g) Equity dividend	18.0	10.0	—	—	16.0	17.0	—	—	20.0	20.0
(h) Equity dividend coverage (No. of times)	0.9	0.8	—	—	1.4	1.4	—	—	1.9	1.9
(i) Paid-up value per equity share (Rs.)	25.00	25.00	10.00	10.00	10.00	10.00	100.00	100.00	10.00	10.00
(j) Market price of an equity share (Rs.)	43.75	45.50	13.75	14.50	26.00	24.50	400.00	452.85	39.50	29.40
(k) Gross yield	10.3	5.5	—	—	6.2	6.9	—	—	5.1	6.8
(l) Gross fixed assets formation	5.4	4.6	0.4	—2.9	3.6	18.7	—1.2	4.3	5.4	17.1
(m) Debt/equity	0.01:1	0.01:1	0.84:1	1.11:1	—	—	0.39:1	0.52:1	0.06:1	0.06:1

Notes: .. Category not applicable

... Amount/Percentage is negligible

— Amount is nil

N.Q. Not quoted

N.A. Not available

The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of various items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments are sometimes made in other items also. Totals may not add up due to rounding off.

EQUITIES

THE WEEK'S PRICE RANGE

(Compiled by Commerce Research Bureau)

In fine fettle

Bombay, September 13

Encouraged by the entry of financial institutions for picking up select scrips, marketmen also entered the trading ring with substantial orders. As a result, equity prices flared up in the past week in varying degrees. Despite the precautionary profit-taking at the higher rates, modest-to-impressive gains were widespread. Activity was much larger and the undertone at the close of week remained in fine fettle.

The profit-taking at the improved levels was attributed to bigger badla charges ranging from 16 per cent to 24 per cent on annual basis against 12 per cent in the previous settlement. There was no adverse impact on the equity sentiment by the BSE circular asking its member brokers not to deal with or transact any business on behalf of defaulting members without its prior approval. The warning was apparently issued following reports that some members have been found dealing in the market on behalf of some members who had defaulted in a big way recently. BSE also fined seven members for not implementing the orders of the arbitration committee at the rate of Rs 500 each.

Cement shares continued to be in the boomlet on sustained buying support. ACC firmed up by Rs 12 to Rs 360.50. The market leader - Century - again came in for fresh support after the payment crisis in May and the subsequent restrictions on dealings. Its price was marked up by Rs 15 to Rs 730. Tata Steel hardened by Rs 12 to Rs 342.50, TELCO by Rs 8 to Rs 411, Baroda Rayon by Rs 12 to Rs 268 and PAL by Rs 9.50 to Rs 350. Reliance, after the recent payment crisis, reached a new high at Rs 163 against the previous closing of Rs 159. Standard was quoted at Rs 291 x.d. against Rs 294. Considering the dividend of 18 per cent, the scrip recorded a fair gain.

GSFC, Indian Dyestuff, Tata Chemicals, Tata Oil, Voltas, Mukand and MICO invited modest buying inquiries. Indian Rayon and NOCIL held the ground in the absence of selling while Gwalior Rayon was quietly steady. In 'B' group Bayer continued to be on the forefront with a further impressive gain of Rs 26.25 at Rs 257.50. Century Enka spurred by Rs 37.50 to Rs 645 and Madras Cements by Rs 37.50 to Rs 645 and Madras Cements by Rs 37.50 to Rs 267.50. Bajaj Auto hardened by Rs 80 to Rs 1,180.

"A" Group Equity Shares

	Closing quotations 4-9-82	High	Low	Closing quotations 11-9-82
	Rs.	Rs.	Rs.	Rs.
A.C.C. (100)	348.50	368.00	345.00	360.50
Ashok Leyland (10)	35.75	36.50	35.00	35.50
Ballarpur Ind. (10)	41.50	41.50	40.00	40.00
Baroda Rayon (100)	256.00	275.00	254.00	268.00
Bihar Alloy (10)	11.50	12.00	11.50	12.00
Bombay Dyeing (25)	65.00	66.00	64.00	66.50
Century (100)	715.00	742.50	715.00	730.00
Colgate (10)	78.50	80.00	78.50	79.00
E.I. Hotel (10)	18.50	19.00	18.50	19.00
Garware Nylon (10)	27.00	27.25	26.50	27.00
Guj. State Fert. (100)	429.00	435.00	427.00	435.00
Gwalior Rayon (10)	48.25	49.25	48.00	48.00
Hind Alum (10)	30.75	31.50	30.00	30.50
Hind Lever (10)	50.00	51.50	50.00	51.50
Hindustan Motor (10)	25.00	25.25	24.50	24.75
Indian Dyestuff (100)	213.75	218.75	212.50	218.75
Indian Organics (10)	27.00	27.50	26.50	27.50
Indian Rayon (10)	87.50	89.50	86.00	87.50
ITC Ltd (10)	33.50	34.50	33.50	34.00
J K Synthetics (10)	60.00	61.00	59.25xr	59.25xr
Larsen & Toubro (10)	51.00	52.25	50.50	51.50
Mahindra & Mahindra (10)	43.00	44.00	42.50	44.00
Metal Box (10)	12.00	12.00	11.75	12.00
Modi Rubber (10)	27.25	28.00	26.50	28.00
Motor Industries (100)	236.25	240.00	236.25	240.00
MRF (10)	22.25	22.25	21.25	22.00
Mukand Iron (10)	24.00	25.00	22.75	25.00
National Organic (100)	176.00	176.00	174.00	176.00
Nirlon (10)	39.25	51.00	36.75	51.00xd
Premier Auto (100)	340.50	355.00	338.00	350.00
Reliance Textile (10)	159.00	165.50	159.00	163.00
Scindia (20)	12.00	12.25	11.50	12.00
Shriram Fibres (10)	47.50	48.00	47.00	48.00
Siemens India (10)	38.00	39.00	38.00	38.50
Sirpur Paper (10)	20.50	20.50	20.00	20.00
South India Viscose (100)	201.25	205.00	201.25	205.00
Southern Petro (10)	14.75	15.25	14.50	14.75
Standard Mills (100)	294.00	315.00	288.00xd	291.00xd
Staw Products (10)	45.50	45.50	43.50	44.00
Swadeshi Mills (100)	133.00	133.00	128.00	132.00
Tata Chemicals (10)	49.75	50.00	48.50	50.00
Tata Eng & Loco (100)	403.00	430.00	403.00	411.00
Tata Oil (25)	53.50	56.00	53.00	56.00
Tata Steel (100)	330.50	355.00	335.00	342.50
Voltas (100)	262.00	266.00	259.00	266.00
Zenith Steel Pipe (10)	42.50	43.00	41.50	43.00
Zuari Agro (10)	18.00	20.25	18.50	20.25

"B" Group Equity Shares

	Closing quotations 4-9-82	High	Low	Closing quotations 11-9-82
	Rs.	Rs.	Rs.	Rs.
Ahmed Advance (100)	247.50	252.30	247.50	250.00
Ahmedabad Elec (100)	98.50	103.00	100.00	101.00
Alkali & Chem (10)	15.25*	—	—	15.25*
Amar Dye-Chem (100)	125.00	125.00	120.00	125.00
Andhra Valley (100)	96.00	99.00	96.00	96.00
Apte Amalgamation (50)	26.00*	—	—	26.00*
Aslan Cables (100)	142.50	142.50	140.00	141.25
Assoc Bearing (100)	377.50	381.25	372.50	380.00
Auto Products (10)	12.25*	13.00	11.50	11.50
Bajaj Auto (100)	1100.00	1180.00	1100.00	1180.00
Bajaj Elec (100)	157.50	—	—	157.50*
Bayer (India) (100)	231.25	275.00	235.00	257.50
BASF (10)	39.00	39.00	37.50	39.00
Best & Crompton (10)	38.50	38.50	36.75	37.50
Bhadrachalam Paper (10)	15.00	16.25	15.00	16.25
Bimetal Bearings (10)	27.00	27.50	27.00	27.00
Blue Star (10)	38.50	38.00	37.00	37.50
Bombay Burmah (25)	45.50	45.50	44.50	45.00
Bombay Oxygen (100)	117.50	122.50	117.50	122.50
Bombay Suburban (100)	137.50*cd	137.50cd	130.00	130.00xd
Cadbury (10)	22.50	22.00	21.50	22.00
Comphor Allied (100)	160.00*	—	—	160.00xr
Ceat Tyres (100)	200.00	202.50	197.50	197.50
Central Ind. Spg. (50)	42.00	43.00	42.00	43.00
Century Enka (100)	607.50	645.00	600.00	645.00
Chemical & Fibres (10)	19.50	19.50	18.50	18.30
Colour Chem (100)	182.50	185.00	175.00	177.50
Corom Fert (10)	27.00	32.50	27.00	31.00
Crompton Greaves (100)	335.00	337.50	335.00	337.50
Cyanamid India (10)	27.00	27.00	25.00	25.00
Dawn Mills (50)	57.00	—	—	57.00*
Elecon Eng. (10)	33.50	—	—	33.50*
Empire Ind. (15)	18.25	19.00	18.25	19.00

	Closing quotations 4-9-82	High	Low	Closing quotations 11-9-82
	Rs.	Rs.	Rs.	Rs.
Ennore Foundries (10)	40.00	40.00	40.00	40.00
Escorts (10)	37.00	37.00	36.50	36.50
Ferro Alloys (100)	200.00	200.00	195.00	200.00
FGP (10)	14.50	—	—	14.50
Finlay (100)	70.00	76.25	70.00	72.50
Gammon India (10)	14.25	14.00	13.25	13.25
Garware Paints (10)	19.50	19.75	19.00	19.25
German Remedies (10)	37.75	38.50	37.50	38.50
Gokak (10)	15.75	15.75	15.00	15.50
Great Eastern Shipping (10)	14.50	15.50	14.25	15.25
Gujarat Alkali (10)	42.00	43.50	41.00	43.00
Gujarat Narmada (10)	12.25	12.50	11.65	12.00
Gujarat Steel Tubes (100)	270.00	275.00	270.00	270.00
Herdillia Chem (10)	22.00	22.00	20.75	20.75
Hind Brown (100)	277.50	277.50	270.00	275.00
Hind Ferodo (10)	42.00	43.00	42.00	43.00
Hindustan Sugar (100)	215.00	215.00	208.75	215.00
Hindustan Spg. (250)	182.50	187.50	185.00	187.50
Hoechst Dyes (10)	24.00	24.00	23.50	24.00
IDL Chemicals (10)	16.50	16.50	15.00	15.00
Indian Explosives (10)	18.25	19.00	18.50	19.00
Indian Hotels (10)	59.00	60.50	59.50	60.00
Industrial Cables (10)	30.00*	—	—	30.00
Ingersoll Rand (10)	162.00	167.00	160.00	165.00
J K Cotton (10)	13.50*	—	—	13.50*
Jayant Paper (100)	140.00	145.00	140.00	142.50
Jyoti (10)	21.00	21.00	20.00	20.00
Kamani Eng (10)	65.00	66.00	65.00	66.00
Khand Ferro (100)	122.50	—	—	122.50*
Khatau (100)	200.00	207.50	200.00	202.50
Kirloskar Cummins (100)	573.75	586.25	570.00	586.25
Kirloskar Oil (10)	20.25	20.50	20.25	20.25
Kohinoor Mills (100)	52.00	53.00	53.00	53.00
Laxmi Vishnu (100)	44.00*	—	—	44.00
Madura Coats (10)	17.50	17.50	17.00	17.50
Mafatlal Eng (100)	93.00	95.00	91.00	91.00
Mafatlal Ind (125)	312.50	312.50	310.00	312.50
Mafatlal Fine (100)	162.50	162.50	160.00	162.50
Maharashtra Sugar (50)	36.00*	36.00	35.00	36.00
Mahindra Ugin (10)	38.50	41.00	38.00	39.50
Morarjee (100)	185.00*	185.00	180.00	185.00
Mysore Cement (10)	38.00	42.00	37.50	41.00
National Rayon (100)	327.50	335.00	327.50	332.50
New Gr Eastern (100)	70.00*	—	—	70.00*
New Stand Eng (100)	95.00*	95.00	90.00	95.00
Otis Elevator (10)	31.50	32.00	30.00	32.00
Pfizer (10)	23.25	23.00	22.50	23.00
Podar Mills (10)	5.50*	—	—	5.50*
Polychem (50)	50.00	51.00	49.00	50.00
Polyolefins Ind (100)	270.00	270.00	190.00xr	190.00xr
Premier Const (60)	91.00	95.00	93.00	95.00
Raghuvanshi (100)	122.50*	—	—	122.50*
Rallis India (100)	185.00*	185.00	177.50	180.00
Raymond Wool (10)	37.00	37.00	34.50	34.50
Rohit Pulp (100)	150.00*	—	—	150.00*
Sandoz (10)	26.50	26.50	25.00	25.00
Sandvik Asia (100)	321.25	322.50	317.50	322.50
Saurashtra Cement (100)	132.50*	—	—	132.50*
Shree Dig Cement (100)	275.00	292.50	270.00	292.50
Shree Niwas (100)	75.00*	—	—	75.00*
Shree Ram (100)	65.00	65.00	52.00	52.00
Simplex (50)	59.50	59.50	59.00	59.50
SLM-Maneklal (100)	152.50	152.50	148.75	150.00
Special Steels (100)	81.00	81.00	65.00	65.00
Stretch Fibres (10)	8.50	9.50	8.25	8.50
Surat Electric (100)	104.00*	108.00xd	104.00	108.00xc
Swadeshi Polytex (10)	14.25*	15.50	14.25	15.50
Swan Mills (100)	125.00	124.00	120.00	120.00
Synthe & Chem (100)	76.00	79.00	74.00	76.00
Tata Hydro (100)	98.00	99.00	97.00	99.00
Tata Mills (25)	18.00	18.00	16.00	16.00
Tata Power (100)	103.00	104.50	100.00	102.00
Tata Yodogawa (100)	130.00	127.50	123.75	127.50
Tata Finlay (10)	12.50	14.25	12.50	13.50
Texmaco (10)	43.50*	43.50	41.00	41.00
United Carbon (100)	155.00	151.25	150.00	151.25
Vulcan Laval (10)	29.00	29.50	29.00	29.50
Walchand Nagar (10)	27.00*	—	—	27.00*
Warner Hind (10)	20.50	22.00	21.00	21.00
West Coast Paper (100)	85.00	85.00	82.50	85.00
Wimco (10)	11.00	11.00	10.75	11.0

Notes: Figures within brackets indicate the paid-up value of shares
xd = Ex-dividend
cd = Cum-dividend

(a) An asterisk mark after the quotation indicates the closing price of the last official trading and not of the date indicated in the columns
(b) The dash (—) in the columns for High and Low means that no official trading in the shares had taken place during the period under report
xr = Ex-right
cr = Cum-right

Market Gossip

Stock brokers in revolt

TRADING on the Bombay Stock Exchange came to a halt on September 15 and is not likely to be resumed till at least September 20. The row is over the daily margins imposed by the stock exchange authorities on six leading scrips with a view to ensuring that there is no overtrading or speculation in these shares. A daily margin of Rs 15 each on both buying and selling has been made applicable to Century, Tata Steel, Premier Automobiles, ACC and Gujarat State Fertilizers Company. Buying and selling in Reliance shares will attract a margin of Rs 10. The stockbrokers seem not to be worried about the good intentions of the governing board. Their anxiety is that the daily margins will affect their business badly because they will not be able to recover the margins from their clients, particularly institutional ones. The clients feel that the problem of daily margins is between the brokers and the stock exchange authorities and it is not their concern. The day margins were imposed (September 13), some of the brokers met Mr V.D. Sonde, chairman of the Bombay Stock Exchange to protest against the decision but, when subsequent to their meeting authorities decided to retain the daily margins, brokers took no part in trading on September 15. The next meeting of the governing board is scheduled to be held only on September 20 and it remains to be seen whether the board will succumb to the demand of the brokers and will go back on its decision.

Investment through gold

THE bullion trade in Bombay has come out with a novel proposal that, overseas Indians desiring to take advantage of the opportunities now made available for investments in Indian industries, should be permitted to send gold, instead of remitting funds, to the government mints which would convert them into standard gold bars. A non-resident seeking to send gold into this country would

be required to authorise a licensed Indian bullion dealer to dispose of his gold on his behalf at the best possible price. The sale proceeds will have to be credited to the remitter's non-resident bank account with further stipulation that these monies would be used only for investments in permitted equity shares and that these funds would be non-repatriable.

According to the Bombay Bullion Association, the overseas Indians would find this scheme very attractive. It is pointed out that a foreign currency remittance of US \$ 10,000 when transferred as such through an exchange bank would bring him, say, Rs 93,000 for investment in the country. Under the arrangement of permitting him to send gold, he would stand to receive an appreciably larger amount, anything between Rs 1,10,000 and Rs 1,40,000 depending upon the prevailing differences in price of gold here and abroad. As a result the capital market in the country would benefit to a greater extent. Simultaneously, with the opening of such lawful 'gold window', the scheme will succeed in breaking the back of the nefarious activities of smugglers because the problem of gold smuggling arises wholly because of shortage of supplies.

Two-way movement in gold

THE world markets have not been able to hold on to the \$ 500 an ounce level reached on September 7, the highest level since June 1, 1981. On that day in London the price was pushed up because of further demand in the Far East and Hongkong had already registered a mark of \$ 500. The market opened very firm at \$ 495 to \$ 499 and was fixed at \$ 488.50 in the morning before rising sharply to a peak of \$ 500 to \$ 505. At the afternoon fixing however, it fell back to \$ 481, and on the next day it declined further by \$ 21 to \$ 461. How will be the market behave in the immediate future? There is no unanimity of view. The gold department of Credit Suisse has predicted a fall in the price to slightly above \$ 400. But in the London market it was reported that after a technical fall of some \$ 50

from the peak of over \$ 500 there was again good buying at lower levels.

Dumping either way?

THERE is a feeling among certain industrialists that the liberal import policy will continue for some time more irrespective of complaints of industries about dumping of goods by foreign countries. A prominent industrialist remarked that it appears that the politicians and the bureaucrats in the government are out to teach the industrialists a lesson. But he also conceded that if Indian industrialists were more patriotic and less economies obsessed the adverse impact of dumping could have been minimised. In the case of viscose fibre, for instance, (where one of the two fibre producers — South India Viscose has closed down and Gwalior Rayon is operating at less than half of its capacity), the user textile units are freely purchasing British or Japanese material. In the case of the British material the cost works out to Rs 18.75 per kg including an import duty of 20 per cent while indigenous material is available for Rs 21.75. The Japanese fibre would appear to be actually costlier than the indigenous material by 40 paise per kg. But the industrialist remarked that the Japanese give 180 days' credit which makes their fibre actually cheaper by 90 paise per kg than the indigenous fibre. "I don't know whether I am doing the right thing but costs dictate terms."

Export units

THE Central Board of Customs has decided on doing away with the declaration of warehousing station in case of 100 per cent export-oriented units. Henceforth local custom authorities would sanction the bonding facilities after inspection of the premises. Representatives of 26 of the 68 export-oriented units in the country meeting in New Delhi have asked for the allotment of a code number of each unit which should enable them to obtain priority treatment from all the departments of the Government.

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ESCORTS LIMITED
NOTICE

Pursuant to Press Note dated 29th July, 1982 issued by the Ministry of Industry, Department of Industrial Development, Government of India read with its Press Note dated 28th August, 1982 and as required under Rule 4A of the Monopolies and Restrictive Trade Practices Rules, 1970, it is hereby notified for the information of the public that Escorts Limited has applied to Government of India for re-endorsement of its licensed capacity for the manufacture of Hydraulic Shock Absorbers for Railways at Faridabad (Haryana) based on the best production achieved during the last five years plus one-third thereof. Brief particulars of the proposal are as under:—

- | | | | | | | | | | |
|---|--|--------------------|-------------|----------------|---------|---------------------------------|---------|--|---------|
| (i) Name(s) of the person(s)/body corporate owning the undertaking. | ESCORTS LIMITED
H-2, Connaught Circus,
New Delhi 110 001. | | | | | | | | |
| (ii) Capital structure of the applicant undertaking. | <table border="0"> <tr> <td>Authorised Capital</td> <td>(Rs. lakhs)</td> </tr> <tr> <td>Issued Capital</td> <td>2000.00</td> </tr> <tr> <td>Subscribed and paid-up capital.</td> <td>1420.72</td> </tr> <tr> <td></td> <td>1418.41</td> </tr> </table> | Authorised Capital | (Rs. lakhs) | Issued Capital | 2000.00 | Subscribed and paid-up capital. | 1420.72 | | 1418.41 |
| Authorised Capital | (Rs. lakhs) | | | | | | | | |
| Issued Capital | 2000.00 | | | | | | | | |
| Subscribed and paid-up capital. | 1420.72 | | | | | | | | |
| | 1418.41 | | | | | | | | |
| (iii) Details of the proposal: | | | | | | | | | |
| i. Name of goods. | Hydraulic Shock Absorbers for Railways. | | | | | | | | |
| ii. Licensed capacity | 15,000 Nos. per annum. | | | | | | | | |
| iii. Re-endorsement on basis of best production. | 24,490 Nos. per annum. | | | | | | | | |

2. Any person interested in the matter may make representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi, under advice to the Company, within 14 days from the date of the publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

Registered Office: for ESCORTS LIMITED
H-2 Connaught Circus, (CHARANJIT SINGH)
New Delhi 110 001. Vice-President and Secretary
Dated this 10th day of September, 1982.

NOTICE

(A) It is hereby notified for the information of the public that Varun Shipping Company Limited proposes to give to the Central Government in the Department of Company Affairs, New Delhi, a notice under sub-section (1) of section 21 of the Monopolies and Restrictive Trade Practices Act, 1969 for substantial expansion of its activities. Brief particulars of the proposal are as under:

1. Name(s) of person(s)/body corporate owning the undertaking: VARUN SHIPPING COMPANY LIMITED

2. Capital structure of the applicant undertaking: Authorised: 75,000 Preference Shares of Rs. 100 each (Rs. 75,00,000) and 2,25,000 Equity Shares of Rs. 100 each (Rs. 2,25,00,000) Total Rs. 3,00,00,000. Issued, Subscribed and Paid up: 24,000 Equity Shares of Rs. 100 each fully paid up.

3. Details of the proposed substantial expansion:

(a) Names of the new goods to be produced, supplied, controlled or distributed or of new services to be rendered: It is proposed to expand the company's fleet by acquiring additional vessels of various types.

(b) In the case of substantial expansion or existing activities:

(i) Name of goods: Operation of vessels.

(ii) Capacity before expansion: The company's present fleet consists of three vessels with a total dwt. of 38,288 M.T. and is in the process of acquiring additional dwt. to raise its capacity to 50,000 dwt. as per earlier sanction under the MRTP Act.

(iii) Expansion proposed: The company proposes to acquire additional vessels with a total investment of Rs. 25 crores in addition to the expansion scheme already approved earlier by the Central Government. The expansion proposal envisages acquisition of dry cargo vessels, bulk carriers and tankers as also off-shore supply vessels.

(iv) Location of the project for substantial expansion: Does not apply.

(v) Brief outline of the cost of the project, the scheme and source of finance: The above costs will be partly financed from internal sources and/or issue of new share capital and the balance by raising finance through commercial banks/credit from shipbuilding yards with SDFC assistance/guarantees.

(B) Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Govt. of India, Shastri Bhawan, New Delhi, within 14 days from the date of publication of this Notice, intimating his view on the proposal and indicating the nature of his interest therein.

For VARUN SHIPPING COMPANY LIMITED
SECRETARY

Registered Office:
6, Shoorji Vallabhdas Marg,
BOMBAY 400 038
Dated: Sept. 10, 1982.

COMMODITIES

Groundnut oil firms up

Bombay, September 13

After the recent decline, groundnut oil prices firmed up in the oilseeds market owing to speculative buyings, higher demand in South India and limited supplies. Better advice from Rajkot also aided the firmness. The price was marked up from Rs 134.42 to Rs 140.40 on September 13. As a result of precautionary selling at the improved rates, the price reacted to Rs 138.32 per 100 kg — showing a net gain of Rs 3.90. As a sequel to the hardening trend, groundnut also went up. Groundnut Karad bold, Saurashtra bold and Saurashtra quality rose by Rs 6 each to Rs 596, Rs 601 and Rs 601 respectively per 100 kg.

Castorseed and its oil suffered further setback on lack of export inquiries, coupled with poor advice from Ahmedabad and Hyderabad. Castorseed Madras small and Kanpur bold yielded Rs 4 each at Rs 336 and Rs 326 per 100 kg respectively. Castor commercial oil dropped further by Rs 1.50 to Rs 74.75 and castor BSS oil by Rs 1.25 to Rs 80 per 100 kg.

Linseed and its oil displayed divergent trend with the former keeping at Rs 470 per 100 kg and the latter losing 52 Paise to Rs 114.92 per 100 kg.

Groundnut expeller and castor, among cakes, ruled steady while de-oil and cottonseed attracted selling pressure. This resulted in a fall of Rs 50 and Rs 25 to Rs 1,250 and Rs 1,625 per tonne.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:-

	10-0-1982	3-9-1982
G. nut Karad bold	596.00	590.00
G. nut oil	138.00	134.42
Cast. Md. Sm.	336.00	340.00
Cast. oil com.	74.75	76.25
Cast. oil BSS	80.00	81.25
Linsed bold	470.00	470.00
Linsed oil	114.92	115.44

Grains divergent

Bombay, September 13

A mixed trend marked trading in grains in the local market.

In cereals, wheat (Shori pissi) ruled steady at Rs 280-350 per quintal. The inflow was good but demand was slack. Supplies were about 2,500 bags.

Arrivals were reported from Punjab and Gujarat. The inferior and damaged varieties were easily absorbed by flour millers. The Sonakalyan variety hardened by Rs 5 to Rs 245-250 per quintal.

Trading in rice was at a low ebb. The inflow from the South was good. Superior varieties and North Indian varieties ruled steady in view of limited supplies. Local demand was slack. The Surti Kolam variety was traded at Rs 400-460 per quintal and the Basmati variety at Rs 800-850 per quintal showing no change during the week.

A steady tendency prevailed in coarse grains, barring maize which declined by Rs 12 to Rs 165 per quintal. Jowar ruled steady at Rs 150-215 per quintal. Bajra was in short supply. Arrivals were only from

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ESCORTS LIMITED NOTICE

Pursuant to Press Note dated 29th July, 1982 issued by the Ministry of Industry, Department of Industrial Development, Government of India read with its Press Note dated 28th August, 1982 and as required under Rule 4A of the Monopolies and Restrictive Trade Practices Rules, 1970, it is hereby notified for the information of the public that Escorts Limited has applied to Government of India for re-endorsement of its licensed capacity for the manufacture of Automotive Shock Absorbers at Faridabad (Haryana) based on the best production achieved during the last five years plus one-third thereof. Brief particulars of the proposals are as under:

- | | |
|---|--|
| (i) Name(s) of the person(s)/body corporate owning the undertaking. | ESCORTS LIMITED
H-2, Connaught Circus,
New Delhi 110 001 |
| (ii) Capital structure of the applicant undertaking: | (Rs. lakhs) |
| | Authorised Capital 2000.00 |
| | Issued Capital 1420.72 |
| | Subscribed and paid-up capital. 1418.41 |
| (iii) Details of the proposal: | |
| i. Name of goods | Automotive Shock Absorbers. |
| ii. Licensed capacity | 6,00,000 Nos per annum |
| iii. Re-endorsement on basis of best production. | 14,30,807 Nos per annum. |

2. Any person interested in the matter may make representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi, under advice to the Company, within 14 days from the date of the publication of this Notice intimating his views on the proposal and indicating the nature of his interest therein.

Registered Office
H-2, Connaught Circus,
New Delhi 110 001
Dated this 8th day of September, 1982

for ESCORTS LIMITED
(CHARANJIT SINGH)
Vice-President & Secretary

**NATIONAL-STANDARD DUNCAN LTD.
FORM IIA
NOTICE**

It is hereby notified for the information of the public that M/s. National-Standard Duncan Ltd proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under sub-section (2) of section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for the production, supply, distribution or control of BEADWIRE & SPECIALITY WIRES proposed installed capacity — 2,200 MT p.a. and estimated annual production turnover — for 1st year 1,500 MT value Rs 120 lacs, for 2nd year 2,200 MT value Rs 176 lacs. Other particulars of the proposed new undertaking are as under:

- i. Name of the proposed undertaking: Proposed undertaking shall be a division of National-Standard Duncan Limited. The applicant Company is managed by the Board of Directors. The names of the Directors are as under:
Mr. G. P. Goenka, Chairman.
Mr. Norman J. Birch
Mr. G. H. Frieling Jr.
Mr. Paul W. Rupp
Mr. Gopal Dass Toolsidass
Mr. Shrenik K. Lalbhai.
Mr. M. A. Bakre
Mr. Pravinchandra V. Gandhi
- ii. Name(s) of person(s) or authority authorities proposing to establish the new undertaking. Where it is a body corporate, furnish details of its management structure together with those of the proposed undertaking.
Mr. J. N. Saxena
Mr. K. Gopalrao (Alternate to Mr. P. W. Rupp)
Mr. P. Sen Gupta (Alternate to Mr. G. H. Frieling Jr.)
Management structure of the proposed undertaking — Not applicable since the proposed undertaking will be a division of National-Standard Duncan Limited.
Capital structure of applicant Company (National-Standard Duncan Limited)

Authorised capital	Rs 2 Crores.
Issued, subscribed & paid up.	Rs 1 Crore.

Capital structure of proposed undertaking — Not applicable since the proposed undertaking will be a division of National-Standard Duncan Ltd.
Hoskote or Doddaballapur in Bangalore District in the State of Karnataka.
- iii. Capital structure of the applicant person or authority and of the proposed undertaking.
- iv. Proposed location of the new undertaking.
- v. Brief outline of the cost of project, the scheme and source of finance.

	Rs lacs.
Land	1.50
Buildings	20.00
Plant & Machinery	60.00
Miscellaneous	3.50
Total	85.00

SOURCE OF FINANCE

—IDBI bills re-discounting.	50.00
—Internal resources.	35.00

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi, within 14 days from the date of publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.
Dated this day of 9th September, 1982.

Signature: P. Chaudhuri
Secretary
Address: 'Duncan House'
31, Netaji Subhas Road
Calcutta 700 001

**ESCORTS LIMITED
NOTICE**

Pursuant to Press Note dated 29th July, 1982 issued by the Ministry of Industry, Department of Industrial Development, Government of India read with its Press Note dated 28th August, 1982 and as required under Rule 4A of the Monopolies and Restrictive Trade Practices Rules, 1970, it is hereby notified for the information of the public that Escorts Limited has applied to Government of India for re-endorsement of its licensed capacity for the manufacture of Pistons and Gudgeon Pins at Bahadurgarh, Patiala in the State of Punjab based on the best production achieved during the last five years plus one third thereof. Brief particulars of the proposal are as under:—

(i) Name(s) of the person(s) body corporate owning the undertaking.	ESCORTS LIMITED H-2, Connaught Circus, New Delhi 110 001.						
(ii) Capital structure of the applicant undertaking:	(Rs. lakhs) <table border="0"> <tr> <td>Authorised Capital</td><td>2000.00</td></tr> <tr> <td>Issued Capital</td><td>1420.72</td></tr> <tr> <td>Subscribed and Paid-up Capital</td><td>1418.41</td></tr> </table>	Authorised Capital	2000.00	Issued Capital	1420.72	Subscribed and Paid-up Capital	1418.41
Authorised Capital	2000.00						
Issued Capital	1420.72						
Subscribed and Paid-up Capital	1418.41						
(iii) Details of the proposal:							
i. Name of goods	a) Pistons b) Gudgeon Pins						
ii. Licensed capacity	a) Pistons — 10,80,000 Nos. per annum b) Gudgeon Pins — 9,90,000 Nos. per annum						
iii. Re-endorsement on basis of best production.	a) Pistons — 13,73,250 Nos. per annum b) Gudgeon Pins — 17,85,554 Nos. per annum						

2. Any person interested in the matter may make representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi, under advice to the Company, within 14 days from the date of the publication of this Notice intimating his views on the proposal and indicating the nature of his interest therein.

Registered Office: for ESCORTS LIMITED
H-2, Connaught Circus, (CHARANJIT SINGH)
New Delhi 110 001 Vice-President & Secretary
Dated this 8th day of September, 1982

Barley. Bajra was quoted at Rs.170-00 per quintal. Barley ruled steady at Rs 133-134 per quintal.

Among pulses, gram dal firmed up at Rs 22 to Rs 340-360 per quintal owing to paucity of arrivals. Moong (humki) recorded a rise of Rs 17 per quintal to Rs 320-340 per quintal. Masoor dal hardened by Rs 2 at Rs 350-410 per quintal. Urad (handesh) declined by Rs 10 to Rs 410 per quintal. Tur dal ruled steady at Rs 550-650 per quintal.

Sold down, Silver erratic

Bombay, September 13

The price of gold declined while price of silver was erratic in the Bombay bullion market during the past week. Standard mint gold opened at Rs 1,715 per 10 gms and closed lower at Rs 1,700 per 10 gms. Ready silver (.999 fineness) opened at Rs 7,700 per kg and after witnessing ups and downs, it closed at the opening level of Rs 2,700 per kg.

THE TATA POWER COMPANY LTD.

(Concluded from page 455)

Our relationship with the State Electricity Board continues to remain cordial. We would like to assure the Chairman, MSEB, and his colleagues of our unstinted assistance and co-operation in the power development programmes of Maharashtra State.

Employee Co-operation

I am happy to record the continued harmonious relationship between staff and management. Members will certainly join me in recording my appreciation of the good performance of the Company's officers and staff at all levels. I look forward with renewed confidence to their sustained loyalty and good work from which only all future challenges can be met and further progress derived.

(N. H. Tata)
Chairman

30th July, 1982

DHRANGADHRA CHEMICAL WORKS LTD. NOTICE

It is hereby notified for the information of the public that Dhrangadhra Chemical Works Limited proposed to make an application to the Central Government in the Department of Company Affairs, New Delhi under Sub-section (2) of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for approval for the establishment of a new undertaking for the production, supply, distribution or control of 20,000 M. Tons of Stable Bleaching Powder. Other particulars of the proposed undertaking are as under:

- (i) Name of the proposed undertaking
- (ii) Name(s) of person(s) or authority/authorities proposing to establish the new undertaking where it is a body corporate furnish details of its management structure together with those of the proposed undertaking

DHRANGADHRA CHEMICAL WORKS LIMITED

Dhrangadhra Chemical Works Limited which is managed by Managing Directors under the supervision and control of the Board of Directors, namely:
Sahu Shriyans Prasad Jain (Chairman)
Shri HHM Sriraj Dhrangadhra
Shri A. K. Roy
Shri Gopaldas P. Parikh
Shri Dharma Vira
Shri Radhakrishna R. Ruia
Shri F. H. Tapia
Shri K. M. Philip
Shri Prem Chand Jain
Dr. G. P. Kane
Shri Gian Chand Jain (Managing Director)
Shri Shashi Chand Jain (Managing Director)
The new undertaking will be managed by the management stated above.

- (iii) Capital structure of the applicant person or authority and of the proposed undertaking
SHARE CAPITAL:
Authorised Capital:
1,00,000 Preference Shares of Rs. 100/- each
2,50,000 Equity Shares of Rs. 100/- each
Issued, subscribed and paid-up Capital:
2,591 — 11% (subject to tax at source) Cumulative Redeemable Preference Shares of Rs. 100/- each fully paid up
25,000 — 9.5% (Subject to tax at source) Cumulative Redeemable Second Preference Shares of Rs. 100/- each fully paid up.
35,000 — 9.5% (Subject to tax at source) Cumulative Redeemable Third Preference Shares of Rs. 100/- each fully paid up.
2,34,774 Equity Shares of Rs. 100/- each fully paid
ADD: Forfeited Shares

	Rs.	Rs.
Authorised Capital:		
1,00,000 Preference Shares of Rs. 100/- each	Rs. 1,00,00,000	
2,50,000 Equity Shares of Rs. 100/- each	Rs. 2,50,00,000	Rs. 3,50,00,000
Issued, subscribed and paid-up Capital:		
2,591 — 11% (subject to tax at source) Cumulative Redeemable Preference Shares of Rs. 100/- each fully paid up	—	
25,000 — 9.5% (Subject to tax at source) Cumulative Redeemable Second Preference Shares of Rs. 100/- each fully paid up.	25,00,000	
35,000 — 9.5% (Subject to tax at source) Cumulative Redeemable Third Preference Shares of Rs. 100/- each fully paid up.	35,00,000	60,00,000
2,34,774 Equity Shares of Rs. 100/- each fully paid	2,34,77,000	
ADD: Forfeited Shares	200	2,34,77,600
		2,94,77,600
140 — 7.8% Cumulative Redeemable Preference Shares of Rs. 100/- each net surrendered by Shareholders for redemption		14,000
		2,94,91,600

- (iv) Proposed location of the new undertaking
- (v) Brief outline of the cost of project, the scheme and source of finance

Sahapuram, Arumuganeri P.O., Tirunelveli Dist., Tamil Nadu.
Estimated cost of the project: Rs. 3 crores
The Project is intended to be financed from our own resources, borrowings and deferred payments.

Any person interested in the matter may make a representation to The Secretary, Department of Company Affairs, Government of India Shastri Bhavan, New Delhi within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of his interest therein.

Dated: this 13th September 1982
Registered Office:
Dhrangadhra 363 315
Gujarat State

For DHRANGADHRA CHEMICAL WORKS LIMITED
Shashi Chand Jain
Managing Director

INDIAN ECONOMY : BASIC INDICATORS

By COMMERCE RESEARCH BUREAU

WEEKLY INDICATORS

Wholesale Price Index (1970-71 = 100)

Group	Aug. 21 1982	During the week ended		Aug. 22 1981	Week	Percentage variation over		
		Aug. 14 1982	July 24 1982			Month	Year	Two years
Manufactured products	276.0	276.0	273.8	278.7	—	0.8	—1.0	4.4
Primary articles	282.3	282.4	277.4	274.8	—	1.8	2.7	19.6
Fuel, power, lubricants, etc. .. .	455.4	455.4	455.4	437.5	—	—	4.1	28.0
All commodities	293.8	293.8	290.7	290.5	—	1.1	1.1	12.9

Money and Banking

	Aug. 27 1982	During the week ended		Aug. 28, 1981	Week	Percentage variation over		
		Aug. 20 1982	July 30, 1982			Month	Year	Two years
Money supply (M3) (b)	66,169(a)	65,895	65,724	58,756(a)	0.4	0.7	12.6	34.3
Bank credit	30,240	30,344	30,492	26,808	—0.3	—0.8	12.8	37.7
Aggregate deposits	46,952	46,518	46,380	41,197	0.9	1.2	14.0	37.9
Foreign exchange reserves (a) .. .	4,066	4,105	3,885	4,317	—1.0	4.7	5.8	—29.6

MONTHLY INDICATORS

	Unit	Latest month Month	Amount/ Index	Previous month	Percentage variation over previous month	Recent trend (per cent)(c)
Industrial production (crude index) ..	1970=100	June 1982	148.5(a)	161.9(a)	8.3	6.8
Electricity generation (public utilities) ..	Million kwh	June 1982	10,453	10,603	—1.6	5.6
Exports	Rs crores	March 1982	563	..	..	—
Imports	Rs crores	March 1982	1,042	..	..	—
Trade balance	Rs crores	March 1982	—479	..	..	—
Foreign exchange reserves (a)	Rs crores	July 1982	3,885	3,803	2.2	—18.5
Wholesale price index	1970-71=100	July 1982	290.8	285.4	1.9	1.0
Consumer price index for industrial workers	1960=100	July 1982	478	470	1.7	7.0
Unemployment (job-seekers on live register of employment exchanges)	Lakhs	February 1982	179.6	179.3	0.2	—

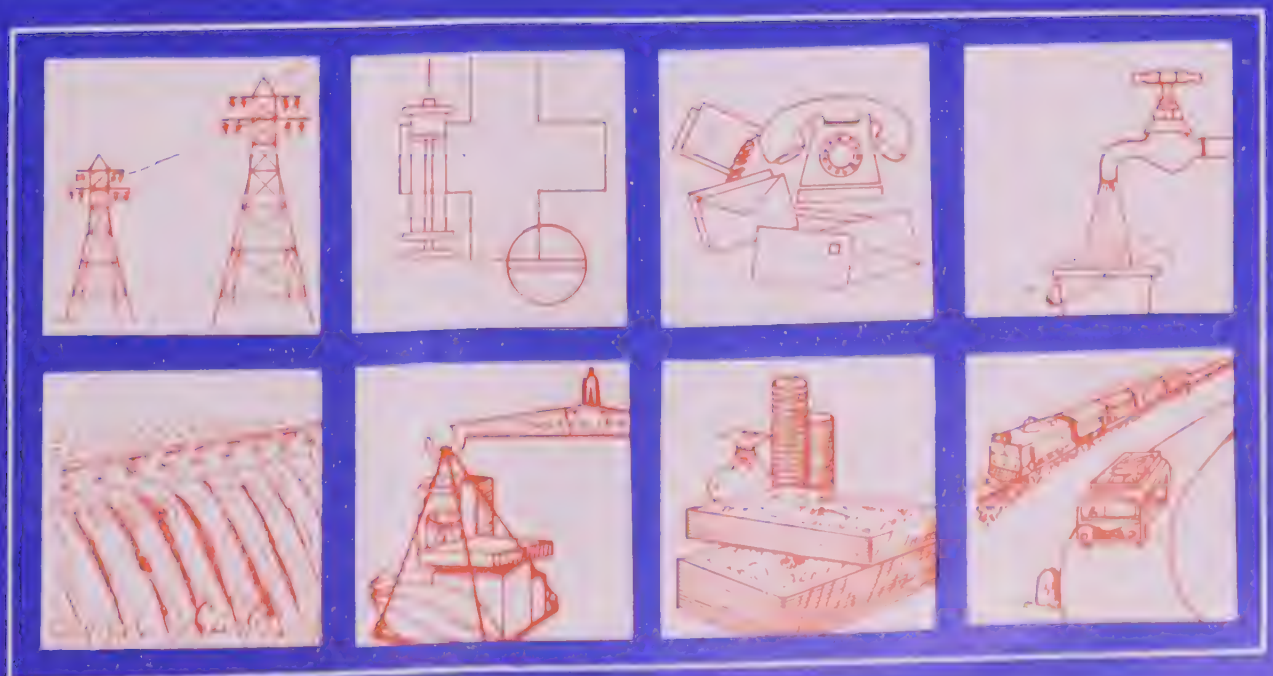
ANNUAL INDICATORS

	Unit	1981-82 (CRB estimates)	1980-81	1975-76	1950-51	Percentage variation in 1980-81 over 1979-80	Annual rate of growth (%) between 1975-76 and 1980-81
Population	Crores	69.1(a)	68.4(d)	60.4	35.8	3.2(g)	2.2(e)(h)
Gross National Product (at market prices) ..	Rs crores	1,38,000(a)	1,25,744	73,907	9,503	17.5(g)	11.2(h)
Per capita GNP (at market prices)	Rupees	1,997(a)	1,855	1,224	265	14.9(g)	8.7(h)
Real national income (Index)	1970-71=100	144.1(a)	137.9	117.1	48.9	7.7(g)	3.3(h)
Real per capita income (Index)	1970-71=100	112.6(a)	109.9	104.9	73.6	5.3(g)	0.9(h)
Agricultural production (Index triennium ending)	1969-70=100	139.3(a)	135.2	124.8	58.5	15.4(g)	1.6(h)
Foodgrains production	Million tonnes	135.0(a)	130.0	121.0	55.0	18.2(g)	1.4(h)
Industrial production (Index)	1970=100	166.4	154.0	119.7(f)	26.5(f)	7.9	12.2
Fertiliser production (NPK in terms of nutrients)	Lakh tonnes	40.9	30.0	18.6	0.18	36.3	14.0
Electricity generation (public utilities) ..	Billion kwh	122.9	111.6	79.2	5.3	10.1	7.6
Exports	Rs crores	7,358	6,711	4,043	601	9.6	10.5
Imports	Rs crores	13,110	12,524	5,265	650	4.7	16.4
Trade balance	Rs crores	—5,752	—5,813	—1,222	—49	—	—
Foreign exchange reserves*	Rs crores	3,797	5,316	1,702	911	—28.6	14.3
Money supply (M3) (b)*	Rs crores	62,468	55,451	22,286	2,336	12.7	18.7
Bank credit*	Rs crores	29,462	25,371	10,877	547	16.8	18.2
Aggregate deposits*	Rs crores	43,820	37,988	14,155	881	15.4	20.7
Wholesale price index (average)	1970-71=100	280.2	257.3	173.0	47.5	8.9	8.4
Consumer price index for industrial workers*	1960=100	457	420	286	..	8.8	8.1
Unemployment (job-seekers on live register of employment exchanges)**	Lakhs	..	162	93	..	13.3(g)	11.7(h)

NOTES: (a) CRB estimates (b) Includes currency with the public deposit money of the public and time deposits with banks (c) Percentage change during the current fiscal year up to the latest month indicated as compared with the corresponding period in the preceding year (d) As on March 1, 1981 as revealed by 1981 Census. (e) Between 1971 Census and 1981 Census (f) Figures relate to 1975 and 1950 respectively * Financial year-end data ** Calendar year-end data (—) = Nil or negligible (..) = Not available

MADHYA PRADESH A NEW THRUST FOR INFRASTRUCTURE

—A SURVEY





Huge machines at work on the site of Bansagar Irrigation Project, Rewa.



A view of the Krishi Mandi, Harda, District Hoshangabad.

COMMERCE

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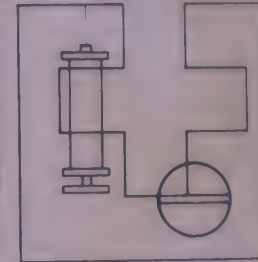
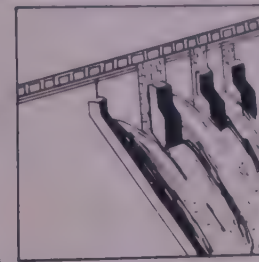
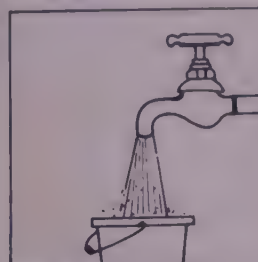
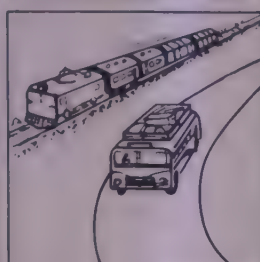
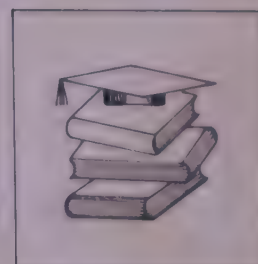
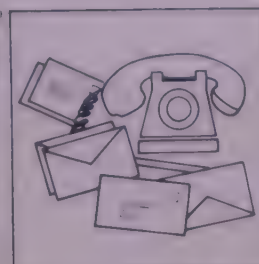
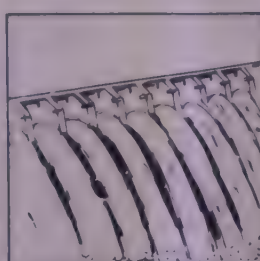
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INFRASTRUCTURE IN MADHYA PRADESH

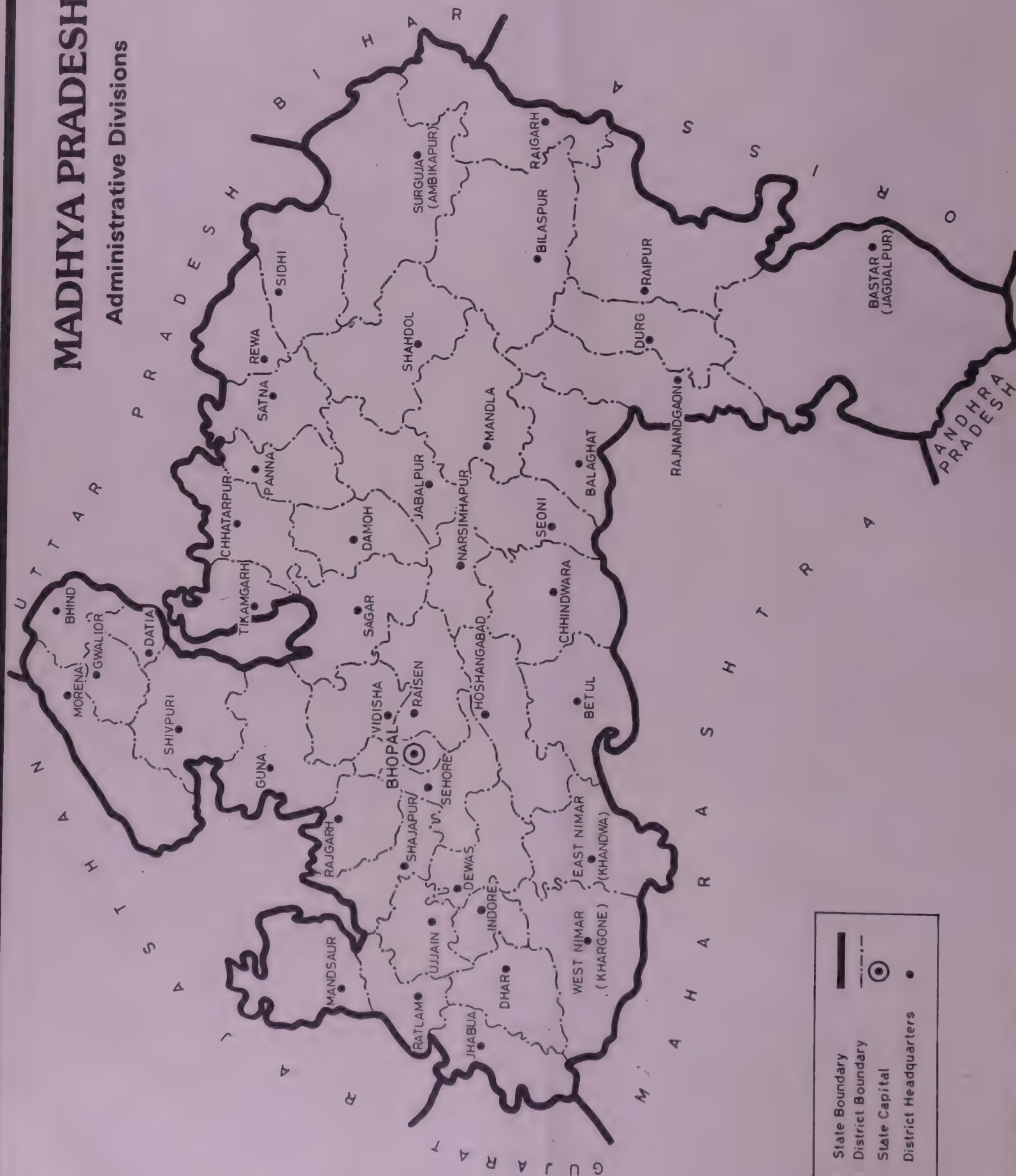
— A SURVEY



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NOTE: Illustration not to scale



Madhya Pradesh: A New Thrust for Infrastructure

By COMMERCE RESEARCH BUREAU

MADHYA Pradesh, the largest State of the Indian Union in terms of area (4.43 lakh sq. km. or about 14 per cent of the country's area) and the sixth largest state in terms of population (5.2 crores in 1981) has remained in the background in respect of economic development for the last several years. Despite the vast natural resources like minerals — being the monopoly producer of diamonds and having substantial shares in the production of dolomite, bauxite, iron ore, coal and limestone — 36 out of its 45 districts are industrially backward.

The reasons for this are varied, complex and peculiar. After the Independence, all the princely states in the Central India were merged into one state called Madhya Bharat. Similarly, the states like Rewa, Panna and Chhatarpur were merged to make Vindhya Pradesh, while Bhopal was made a separate state. Subsequently, on the recommendation of the State Reorganisation Commission, these states were again merged into one on November 1, 1956 to form the existing Madhya Pradesh State. There was wide disparity in the level of development in those small princely states which merged into one unit. Barring states like Gwalior and Indore, the other princely states were comparatively backward. As such the Madhya Pradesh State did not have a sound infrastructure base to fall back on.

The sheer size of the State poses problems in the implementation of any developmental programmes as the financial resources have to be made available on a huge scale. The average density of population in the State is 118 persons per sq. km. Within the state, a district like Bastar — largest in terms of area — is so sparsely populated that the density of population here happens to be as low as 47 persons per sq. km. Another factor contributing to the backwardness is in the predominance of tribal population which accounts for about one-fourth of the State's population and of total tribal population of India. More than half the population in each of the districts of Jhabua, Bastar, Mandla, Surguja and Dhar is made up of tribals. The gravity of the problem of communication in these districts is such that some of the areas are literally inaccessible. However, the most important factors for the backwardness are the underutilisation of abundant natural resources, underdeveloped infrastructure and disorganised extension network.

The economic backwardness of Madhya Pradesh is reflected in its per capita income (at current prices) which was Rs 1,177 in 1980-81 as against the all-India average of Rs 1,537. The State ranked much below among other states in this respect. The data on per capita income of Madhya Pradesh and India for the period 1970-71 to 1980-81 are shown in Table 1.

Building up of adequate infrastructure facilities is an essential pre-requisite to sustain and support all kinds of developmental effort in the State. The development of infrastructure in Madhya Pradesh tends to be more capital-intensive than it is in other states, both because of topography and distances. The past performance of Madhya Pradesh on the infrastructure front was very dismal. Practically in respect of all the indicators of infrastructure development like per capita power con-

**Table 1 : Per Capita State/National Income:
1970-71 to 1980-81**

Per capita income (Rs)

Year	Madhya Pradesh		India	
	At current prices	At constant (1970-71) prices	At current prices	At constant (1970-71) prices
1970-71	484	484	633	633
1971-72	534	507	660	627
1972-73	578	476	712	604
1973-74	737	479	871	621
1974-75	841	470	1,006	618
1975-76	781	497	1,029	664
1976-77	781	449	1,094	659
1977-78	930	508	1,210	701
1978-79	893*	482*	1,250*	715*
1979-80	877	393	1,316*	661*
1980-81	1,177	491**	1,537**	696**

* Provisional ** Quick estimate

Sources: 1. Government of Madhya Pradesh, Directorate of Economics and Statistics, *Estimates of State Domestic Product, 1970-71 to 1980-81*.2. Government of India, Ministry of Planning, Central Statistical Organisation, *National Accounts Statistics, 1970-71 — 1980-81*, February 1982.

sumption, net irrigated area, length of railways and roads per unit area, literacy, skilled manpower and availability of postal and banking facilities, Madhya Pradesh fared very poorly. In fact, the level of infrastructure development in Madhya Pradesh was the lowest among the states. The index of infrastructure development, as constructed by the Commerce Research Bureau, showed that the State's index was only 64 in 1979-80 as against the base of 100 for all-India and 212 for Punjab, 156 for Haryana and 154 for Tamil Nadu.

During the past 25 years, this particular aspect — i.e., development of infrastructure — was not considered in its proper perspective and in a way neglected by the each successive government in power. Sincere and honest efforts are being made now not only to free the State from the shackles of backwardness but to raise it to the level of some of the industrialised states by laying special emphasis on the development of infrastructure. In the Sixth Five Year Plan, out of the total outlay of Rs 3,800 crores, an outlay of over Rs 3,000 crores or 80 per cent has been allocated to infrastructure development, including water supply (Table 2), as against about 70 per cent in the Fifth Plan and less than 60 per cent in the Fourth Plan.

In the following pages an effort is made to present a comprehensive picture of each of the indicators of infrastructure development.

Table 2 : Outlay on Infrastructure in Madhya Pradesh

Head of development	Annual Plan (1982-83) outlay		Sixth Plan (1980-85) outlay	
	Rs crores	Per cent to total	Rs crores	Per cent to total
1. Power	300.00	41.4	1,500.00	39.5
2. Irrigation (a+b+c)	183.40	25.3	1,052.55	27.7
(a) Major & medium	136.50	18.8	780.00	20.5
(b) Minor	46.00	6.3	267.75	7.1
(c) Flood control	0.90	0.2	4.80	0.1
3. Transport & Communication (a+b)	32.00	4.4	157.50	4.1
(a) Roads and bridges	24.00	3.3	130.00	3.4
(b) Road transport	8.00	1.1	27.50	0.7
4. Education (a+b+c+d)	16.05	2.2	96.67	2.5
(a) School	12.00	1.6	74.69	2.0
(b) College	1.43	0.2	8.20	0.2
(c) Social	1.32	0.2	7.63	0.2
(d) Technical	1.32	0.2	6.15	0.1
5. Health	18.57	2.6	93.82	2.5
6. Water supply	25.00	3.4	146.50	3.9
Total for infrastructure	575.02	79.3	3,047.04	80.2
Total outlay on all heads of development	725.00	100.0	3,800.00	100.0

Source: Communication from Planning, Economics and Statistics Department, Government of Madhya Pradesh, Bhopal.

ELECTRIC power plays a crucial role in the development of all the sectors of the economy. Realising the importance of this basic requisite the Madhya Pradesh Government has accorded top priority to power development during the Sixth Plan allocating an outlay of Rs 1,500 crores or 40 per cent of the total outlay of Rs 3,800 crores.

The State has vast water resources which could be utilised for hydro power and coal deposits which could sustain a number of major thermal power stations, both existing and proposed. In fact, the State is the second largest producer of coal in the country after Bihar.

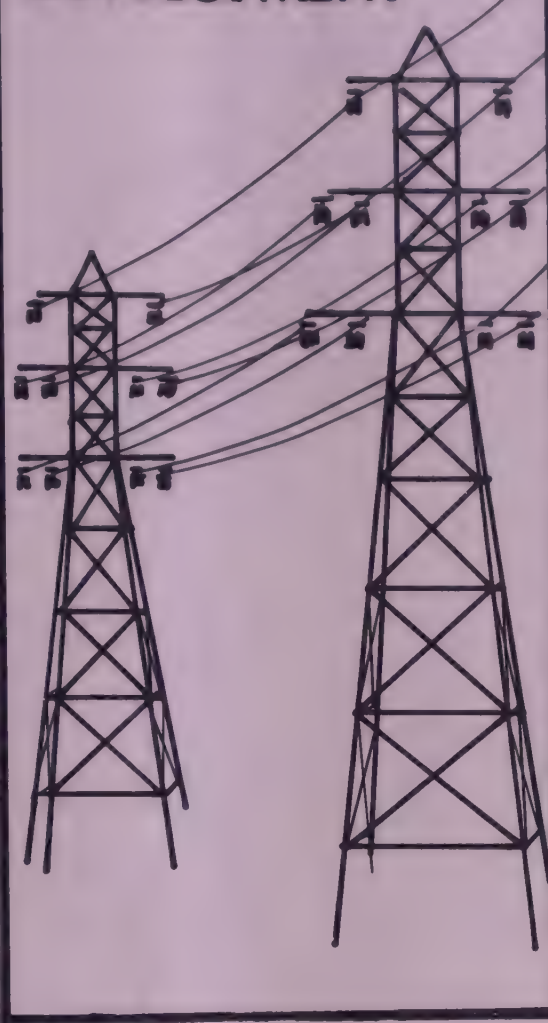
On the whole, Madhya Pradesh was in a comfortable position until recently in respect of power supply. It was only from 1975 that the State has started experiencing the power shortage. This was mainly because of the growing demand for power from industrial and agricultural sectors and the inability to match this demand by creating additional generating capacity.

All-out efforts are being made by the present Government to raise the power capacity. According to Mr Arjun Singh, Chief Minister, the coal-rich state of Madhya Pradesh would become the "energy capital" of India in the years to come. The State's Singrauli area, which abounds in coal deposits, alone has a potential of thermal power generation of 20,000 mw. The State Government is making efforts to chalk out a comprehensive plan for having a power complex with an installed capacity of 10,000 mw in the next five years. The Singrauli complex, if materialised according to the plan, would turn out to be the single largest thermal power generation project in the country.

The present installed capacity for power generation in the State consists of 193 mw of hydel power and 1,437.5 mw of thermal power as at the end of March 1982 making a total of 1,630.5 mw. Besides, the Madhya Pradesh Electricity Board is entitled to 67.5 mw of power from the projects in the neighbouring states, though it has not been getting its share from the Rihand project (37.5 mw) in Uttar Pradesh and the Hirakud project (5 mw) in Orissa. Against its entitlement the State draws between 25 to 30 mw of power from the neighbouring states.

The installed capacity in the State increased from 207 mw at the end of the

POWER DEVELOPMENT



Second Plan to 288 mw at the end of the Third Plan. Spectacular progress was achieved in the Fourth and Fifth Plans.

During the first two years (1980-81 and 1981-82) of the Sixth Plan the installed capacity increased by 315 mw to 1631 mw. The progress in installed capacity and generation over the last two decades in Madhya Pradesh vis-vis India is shown in Table 3.

The installed capacity in the State was expected to reach 2,260.5 mw by the end of March 1983. Power generation during the first four months (April-July) of 1982-83 totalled 2,460 million kwh. This was higher by 15.3 per cent than that during the corresponding months of 1981-82. For the country as a whole the rate of increase in power generation during this period was much lower at 7.1 per cent.

Composition of hydel and thermal power

Though hydel power sources are vast in Madhya Pradesh the generating capacity is more or less constant at 193 mw for about last 10 years. The thermal power capacity increased from 702 mw in March 1977 to 1,438 mw in March 1982 and its share in the total power generation increased from 78 to 89 per cent during this period. Madhya Pradesh could be the largest producer of thermal power on completion of the coal pit-head located power units namely Korba, Satpura, Waidhan and Birsinghpur. The hydel power generation schemes are expected to get momentum once the Narmada water award between the states

Table 3: Installed capacity and power generation in Madhya Pradesh and all-India

Year	Installed capacity		Power generation	
	Madhya Pradesh (mw)	All-India (mw)	Madhya Pradesh (Million kwh)	All-India (Million kwh)
1960-61	207		404	16,937
1965-66	288		1,140	32,990
1971-72	709	15,254	2,974	60,926
1972-73	742	16,282	3,499	64,546
1973-74	758	16,664	3,258	66,689
1974-75	776	18,316	3,620	70,190
1975-76	892	20,178	4,140	79,230
1976-77	893	21,468	4,446	89,200
1977-78	1,013	23,689	5,194	91,369
1978-79	1,132	26,680	5,243	1,02,523
1979-80	1,316	27,358	5,722	1,04,715
1980-81	1,590	29,943	5,952	1,11,572
1981-82	1,631	32,446	6,520	1,22,900

SOURCES:

1. Government of Madhya Pradesh, Directorate of Economics & Statistics, Pocket Compendium of Madhya Pradesh Statistics, (various issues)
2. Government of India, Ministry of Energy, Department of Power Central Electricity Authority, (i) Public Electricity Supply, All-India Statistics, General Review 1975-76 to 1978-79 (ii) Bulletin of Monthly Power Supply Position in the country (various issues)
3. Communication from Energy Department, Government of Madhya Pradesh, Bhopal

MADHYA PRADESH

Major Power Projects and Transmission Network



of Madhya Pradesh, Gujarat and Maharashtra is successfully implemented.

Capacity utilisation of power plants

As regards efficiency and capacity utilisation of power plants in Madhya Pradesh it will be seen from Table 4 that the State has been above the all-India average.

Data for the past five years show that the shortfall in power has increased in successive years. As against a shortfall of 344 million kwh or 6.5 per cent of the requirement during 1977-78 the shortfall in 1980-81 was 1,119 million kwh or 16 per cent of the requirement. The shortfall, however, came down to 8.6 per cent in 1981-82 (Table 5).

The estimates for 1982-83 are 7,462 million kwh of availability against 8,561

8 to 10 per cent of the total available power. Further, the power sales outside the state were reduced from 13 per cent in 1973-74 to a very negligible percentage during 1978-79. The data on the net generation, purchases and sales are given in Table 6.

Transmission losses accounted for a very high percentage of the total availability in the State. The losses ranged from 17 per cent to 20 per cent between 1973-74 and 1978-79. Losses were 22.3 per cent during 1979-80, 22 per cent in 1980-81 and 21.1 per cent in 1981-82.

The State has arrangements for sharing power from jointly owned power stations with the Rajasthan Electricity Board. It shares the hydel power from Gandhisagar (MP Board), Jawaharsagar, Rana Pratap Sagar (both Rajasthan) on 50:50 basis. Madhya Pradesh receives 60 per cent power from the Satpura thermal power station. Actual sharing, however, depends on the availability in the State.

Transmission net-work

Madhya Pradesh has a well-spread network of power transmission lines — the 220 kv double transmission system extends from Korba and Barsoor in the south to Barwaha and Ujjain in the west and Gwalior in the north with supporting 132 kv and 66 kv lines. Being centrally situated, the transmission system of the State is inter-connected with all the neighbouring states which facilitates inter-state exchange of power. In view of the establishment of new generating units like Korba and Satpura and the need to evacuate power from these units as also to link the eastern and western regions to the grid, the Madhya Pradesh Electricity Board has started the work of laying 400 kv extra high-tension (EHT) transmission lines. Till the end of the first Plan there were no EHT transmission lines. These lines form the basis of an

Table 4: Efficiency and capacity utilisation of power plants in Madhya Pradesh

Year	Efficiency of power plants i.e. generation per kw of capacity (in kwh)		Capacity utilisation (per cent)	
	Madhya Pradesh	All-India	Madhya Pradesh	All-India
1960-61	1,952	3,604	22.3	41.1
1965-66	3,958	3,666	45.2	41.8
1971-72	4,195	3,992	47.9	45.5
1972-73	4,517	3,960	51.6	45.2
1973-74	4,298	3,993	49.1	45.6
1974-75	4,665	3,836	53.3	43.8
1975-76	4,641	3,942	53.0	45.0
1976-77	4,993	4,188	60.0	47.8
1977-78	4,576	3,919	52.2	44.7
1978-79	3,979	3,898	45.4	44.5
1979-80	4,414	3,857	50.4	44.0
1980-81	3,812	3,726	43.5	42.5
1981-82	4,188	3,787	47.8	43.2

SOURCES:

1. Government of Madhya Pradesh, Directorate of Economics & Statistics, *Pocket Compendium of Madhya Pradesh Statistics*, (various issues).
2. Government of India, Ministry of Energy, Department of Power, Central Electricity Authority, (i) *Public Electricity Supply, All-India Statistics, General Review 1977-78 and 1978-79*. (ii) *Bulletin of Monthly Power Supply Position in the Country* (various issues).

The utilisation of capacity in thermal plants was still higher than the overall utilisation in the State. During 1981-82 it was 49.1 per cent. In the first four months (April-July) of 1982-83 it further increased to 53.8 per cent. As against the level of 55 per cent utilisation indicated by the Union Government, Madhya Pradesh was expected to achieve 58.4 per cent in thermal plants by the end of 1982-83.

Requirement and availability of power

The present power situation in the State is not very comfortable. There have been power cuts on high-tension industries for over the last seven years. There is also a demand cut of 40 to 50 per cent with effect from February 1982 on a number of industries. Several industries are hit by load-shedding, particularly in Indore, Ujjain, Ratlam, Jabalpur and Raipur.

million kwh of requirement resulting in a deficit of 1,099 million kwh or 20.7 per cent.

Purchase and sale of power

Purchases of power from outside were 14.6 per cent of the net available power in 1973-74, while during the subsequent years the purchase accounted for about

Table 5: Requirement and availability of power in Madhya Pradesh

Year	Requirement (Million kwh)	Availability (Million kwh)	Deficit	
			Million kwh	As per cent of requirement
1977-78	5,317	4,973	344	6.5
1978-79	6,104	5,230	874	14.3
1979-80	6,531	5,524	1,007	15.4
1980-81	6,989	5,870	1,119	16.0
1981-82	7,057	6,448	609	8.6

SOURCE:

Government of India, Ministry of Energy, Department of Power Central Electricity Authority, *Bulletin of Monthly Power Supply Position in the country* (various issues).

Table 6: Generation, purchases and sales of power in Madhya Pradesh

(Million kwh)

	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80
1. Generation	3,258	3,620	4,140	4,446	5,193	5,243
2. Station consumption	245	258	308	338	385	424
3. Net generation	3,013	3,362	3,832	4,108	4,808	4,819
4. Purchase	515 (14.6)*	296 (8.1)*	341 (8.2)*	465 (10.2)*	406 (7.8)*	556 (10.3)*
5. Availability (3+4)	3,528	3,658	4,173	4,573	5,214	5,375
6. Losses	603 (17.1)**	733 (20.1)**	783 (18.8)**	832 (18.2)**	968 (18.6)**	1,083 (20.2)**
7. Free supplies	1	1	2	2	2	3
8. Sales	2,924	2,924	3,388	3,739	4,244	4,289
Inside the State	2,545	2,781	3,386	3,736	4,077	4,286
Outside the State	379	143	2	3	167	3

* Percentage of purchases to availability.

** Percentage of losses to availability.

SOURCE:

Government of India, Ministry of Energy, Department of Power, Central Electricity Authority, State Electricity Boards, Financial Performance Review, November 1981.

inter-connected grid system. The scheme envisages the construction of three single circuit lines with a total length of 823 km by March 1984. The 400 kv systems would result in considerable economy in power transmission. The work of connecting the State's system with that of Andhra Pradesh by a 220 kv line between Barsoor in Bastar district and Sileru in Andhra Pradesh was completed in early 1982.

At the end of March 1982, the length of EHT transmission lines in the State was 11,830 circuit km. The total number of EHT transformers was 199 and their capacity 4,970.5 mva. The extension of sub-transmission and distribution lines on a large-scale was effected from the Fifth Plan onwards. The length of these lines at the end of March 1981 was 86,000 circuit km and 119,000 thousand circuit km respectively.

The Electricity Board has taken up systems improvement works and installed ten 33 kv capacitors at grid sub-stations to improve voltage and reduce transmission and distribution losses, besides intensifying its efforts to prevent pilferage.

Pattern of power consumption

The classification of power consumption in Madhya Pradesh is available for about 80 per cent of the generation. Table 7 shows pattern of power consumption for domestic, industrial, commercial irrigation and other purposes.

The consumption for industrial purposes went up from 91.6 mw in 1956 to 1,140 mw in 1965-66, 2,745 mw in 1975-76 and 3,473 mw in 1980-81. There is an increase of 38 times in industrial power consumption between 1956 and 1980-81

as compared to about 14 times in domestic consumption and 16 times in commercial consumption.

The per capita consumption of electricity in Madhya Pradesh during 1979-80 was 99 kwh as against 133.5 kwh for the entire country. It ranked fifteenth among the states in this respect. However, it will be seen from Table 8 that over the last twenty years the consumption has gone up by almost five times in Madhya Pradesh as compared to about three and a half times for the country as a whole. The State proposes to bridge the gap between the all-India average and the consumption in Madhya Pradesh during the Sixth Plan period.

Table 8: Per capita consumption of electricity in Madhya Pradesh

	(kwh)	
March-end	Madhya Pradesh	All-India
1961 (December-end)	19.6	38.2
1966	37.8	61.3
1969	48.7	77.9
1974	68.4	97.5
1976	83.0	110.0
1977	90.0	119.4
1978	93.6	120.7
1979	96.5	131.0
1980	99.0	133.5

SOURCE:

Government of India, Ministry of Energy, Department of Power, Central Electricity Authority, Public Electricity Supply, All-India Statistics, General Review (various issues)

Rural electrification

Concerted efforts in the field of rural electrification in the State started with the formation of the Rural Electrification Corporation of India (REC) in 1969. Till March 1969, rural electrification in

Table 7: Classification of power consumption in Madhya Pradesh

Class	1956	1960-61	1965-66	1970-71	1975-76	1978-79	1979-80	1980-81
Domestic	16.3	9.7	6.5	7.3	5.9	6.3	6.9	7.5
Industrial	59.4	73.7	83.7	79.3	81.2	78.5	76.5	75.9
Commercial	8.7	3.6	2.4	2.1	4.6	4.5	4.7	4.8
Others	15.6	13.0	7.4	11.3	8.3	10.7	11.9	11.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCES:

1. Government of Madhya Pradesh, Directorate of Economics and Statistics, Pocket Compendium of Madhya Pradesh Statistics (various issues).
2. Communication from Madhya Pradesh Electricity Board.

Madhya Pradesh was in its infancy. Only 2,754 villages and 31,469 pumpsets were electrified by that period. At the end of March 1982, of the 70,833 villages 29,020 villages or 40.9 per cent were electrified. The number of pumps electrified at the end of this period was 4,43,717. In the first three months (April-June) of 1982-83, 2,374 villages were electrified bringing the total of such villages to 31,394 or 44.3 per cent. During the same period an additional 22,012 pumps were electrified raising their number to 4,65,729. At the end of the Sixth Plan period it is proposed to raise the level of electrification to 53 per cent (37,050 villages). The progress of rural electrification since 1960-61 is given in Table 9.

The Electricity Board has been making special efforts to extend the benefits of electrification to tribal and Harijan population. At the end of March 1982, 7,196 Harijan basties in the State were electrified while 57,851 single-point connections were provided to tribals and Harijans at concessional rates. Efforts are now being made to provide electricity

to all the Harijan basties which are situated in villages already electrified.

Shortage to continue beyond Sixth Plan

Despite the fact that several power units are due for commissioning, the State Government has estimated that at the end of the Sixth Plan the shortfall in capacity would increase to 765 mw as compared with 365 mw at the beginning of the Plan. Similarly at the end of the Seventh Plan, the capacity required on the basis of the anticipated demand would be 7,003 mw, but the capacity to be established on the basis of the already sanctioned power projects would be only 3,760 mw. Thus, the gap at the end of the Seventh Plan would be 3,243 mw or as much as 46.3 per cent of the requirement. The various power projects under execution by Madhya Pradesh Electricity Board with expected dates of commissioning are given in Table 10.

Besides the on-going projects with a total capacity of 2,377 mw within the State, Madhya Pradesh would get a share

of 58 mw and 116 mw during 1982-83 and 1983-84 respectively from the Central sector super thermal units of the National Thermal Power Corporation at Korba. The State is also entitled to 228 mw share in the 500 mw capacity of the first phase of Narmada Sagar (final share 684 mw and final capacity 1,000 mw) project.

Shortage of funds reportedly acts as a constraint on the speedy execution of the power projects. Other constraints are delay in supply of equipment and shortage of material like steel and cement. At present 89 per cent of the power in the State is from thermal units, there being only one hydel power unit working. The thermal-hydel mix would change to 8:2 for thermal-hydel projects by 1988.

New schemes under examination

Five new hydel schemes with a total capacity of 715 mw and one revised scheme of 120 mw are in various stages of examination. One thermal project which would be a joint project (Bandhav thermal project) based on coal deposits is also in process. A 1,000 mw hydro electric project in the Indravati valley in

Table 9: Number of villages electrified and pumpsets/tubewells energised in Madhya Pradesh: 1960-61 to 1982-83.

March-end	Number of villages electrified	Percentage to total number of villages	Number of pumpsets/tubewells energised
1960-61	377	0.5	1,822
1965-66	1,125	1.6	7,314
1968-69	2,754	3.9	31,469
1975-76	11,822	16.7	1,46,739
1976-77	13,829	19.5	1,80,282
1977-78	16,350	23.1	2,13,654
1978-79	19,101	26.9	2,42,138
1979-80	21,801	30.8	3,62,030
1980-81	25,400	35.9	4,04,000
1981-82	29,020	40.9	4,43,717
1982-83 (June-end)	31,394	44.3	4,65,729

SOURCES:

1. Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics*, (various issues).
2. Communication from Directorate of Information and Publicity, Government of Madhya Pradesh, Bhopal.

Bastar district of Madhya Pradesh is under consideration of the Madhya Pradesh and Maharashtra governments. Both these governments have also agreed to take up jointly the construction of the 160-mw Kanhar hydel-cum-irrigation scheme.

Both these schemes are proposed for the Seventh Plan. Since Madhya Pradesh is centrally placed in the country, its hydel projects on the important rivers of Son, Narmada, Tapti, Indravati and Mahanadi are dependent on its agreements with

the neighbouring states of Gujarat, Maharashtra, Uttar Pradesh, Bihar and Orissa. The details of the hydel schemes under process of examination by the Central Electricity Authority are given in Table 11.

Table 10 : Progressive installed capacity in Madhya Pradesh

Name of power station	District	Installed capacity (mw)		Expected date of commissioning
		Hydel	Thermal	
Satpura Extension Eighth Unit	Betul	—	210	October 1982
Korba West State I Unit I	Bilaspur	—	210	December 1982
Satpura Extension Ninth Unit	Betul	—	210	March 1983
Korba West Unit II	Bilaspur	—	210	June 1983
Korba West Unit III	Bilaspur	—	210	December 1983
Pench Hydel (MP's share)	Chhindwara	53.5	—	June 1984
Korba IV	Bilaspur	—	210	June 1984
Bargi Hydel	Jabalpur	45	—	June 1984
Pench Hydel (MP's share)	Chhindwara	53.5	—	December 1984
Bargi Hydel	Jabalpur	45	—	December 1984
Birsinghpur Unit I	Satna	—	210	December 1985
Birsinghpur Unit II	Satna	—	210	June 1986
Bodhghat Hydel 125 × 4	Bastar	250	—	1986-87
Bodhghat Hydel 125 × 4	Bastar	250	—	1987-88
Total		697	1,680	

SOURCES :

1. Answer to the Unstarred Question No. 2245 in the Lok Sabha on September 1, 1981.
2. Government of Madhya Pradesh, Directorate of Economics & Statistics Economic Survey, 1981-82.
3. Communication from Department of Energy, Government of Madhya Pradesh, Bhopal.

Table 11 : New hydel schemes proposed in Madhya Pradesh

Name of hydel scheme	District	Cost (Rs. crores)	Installed capacity (mw)
1. Bansagar	Rewa	195.8	3 × 105) 2 × 15) 390 3 × 15)
2. Sindh river multi-purpose project Phase II (Mohini-Sagar)	Bhind	39.3	
3. Orchha multi-purpose project	Tikamgarh	37.5	3 × 25) 75 2 × 15) 2 × 30) 90
4. Kutru I	N.A.	72.6	3 × 50) 150
5. Mahanadi reservoir	Raipur	7.3	4 × 2.5) 10
6. Hasdeo Bango	Bilaspur	41.0	3 × 40) 120
			Total 835

N.A. = Not available

SOURCE :

Answer to the Unstarred Question No. 357 in the Lok Sabha on November 24, 1981.

Hydel projects on the Narmada

Narmada is one of the most important rivers in the State which is also the biggest west flowing river in India. The Gujarat Government had drawn a Rs 2,331-crore (present estimate Rs 4,000 crores) multi-purpose project on this river for sharing of water between Gujarat, Madhya Pradesh and Rajasthan and sharing of power between Gujarat, Madhya Pradesh and Maharashtra. After 22 years of dispute the Narmada accord for sharing of water and power by the concerned States was finally signed on August 25, 1981. The Narmada Water Dispute Tribunal award decreed that cost allocation will be 43.9 per cent for irrigation and 56.1 per cent for power. Cost and power generation is to be shared in the ratio of 57:27:16 by Madhya Pradesh, Maharashtra and Gujarat. The tribunal has estimated 590 MW of power production at the Navagam dam in Gujarat. There are eight more projects which among them would add another 305 MW of power.

Bhopal-Patnam Hydel Project

The State Governments of Madhya Pradesh and Maharashtra have jointly drawn this ambitious project on the Indravati river. Estimated to cost Rs 400 crores, the project envisages generation of 1,000 MW of power. Madhya Pradesh would receive 550 MW of power and bear 55 per cent of the cost. To begin with, a bridge at a cost of rupees one crore would be built across the Indravati river connecting Bastar district in Madhya Pradesh and Chandrapur district in Maharashtra. A detailed project report is being prepared for submission to the World Bank for seeking aid.

New thermal power projects

The following four major thermal projects are under various stages of implementation. While the first two projects would be executed by the National Thermal Power Corporation the remaining two projects, which are inter-state, would be undertaken by the Electricity Board.

Vindhyachal Super Thermal Project: The Geological Survey of India has found a rich coal belt on the Madhya Pradesh-Uttar Pradesh border. A substantial part of this belt is in Sidhi district of Madhya Pradesh while the other part falls in Mirzapur district of Uttar Pradesh. Known as the Singrauli area, the deposits here are the most promising with 9,000 million tonnes of low grade coal. About 64 per cent of the Singrauli coal belt, which has a potential of producing 20,000 MW of electricity, falls in Madhya Pradesh.

The Vindhyachal project of the Waidhan project was drawn based on the coal find in Sidhi district. Madhya Pradesh would take a big leap in power generation with this 1,260 mw (210×6) super thermal power project. This project of the National Thermal Power Corporation (NTPC) would have an ultimate power potential of 2,000 MW. Madhya Pradesh is expected to get one-third share of power. The first phase of the project is estimated to cost Rs 1,000 crores including power transmission lines. The Soviet Union is expected to extend Rs

300 crores for this project. An agreement was signed in June 1982 with the Soviet Union for the supply of equipment and supervision of the erection work. The 210 MW first unit is likely to be commissioned in June 1987 and the five remaining units of 210 MW are to be commissioned with an interval of six months each thereafter.

Korba Super Thermal Project: The Korba super-thermal project of the National Thermal Power Corporation in Bilaspur district envisages a total capacity of 2,100 MW in two stages — using coal from the Kusumunda mines of the Western Coal fields. The first 200 MW unit of stage I (1100 MW — 200×3 + 500×1 MW estimated to cost Rs 578 crores) is under completion and is likely to be commissioned in November 1982. Two units of 200 MW of Phase I are likely to be completed in 1983 and the 500 MW unit is to be completed in 1986. Two units of the 500×2 MW stage II are approved by the Planning Commission for being taken up during the Sixth Plan at an estimated cost of Rs 468.7 crores. These two units of stage II are expected to be completed during 1987 and 1988. The International Development Association has approved a credit of Rs 356 crores (\$ 400 million) for this expansion programme. The Korba plant is being connected with the Madhya Pradesh, Gujarat and Maharashtra power grids. Madhya Pradesh would get a share of 29 per cent from this project.

Bandhav Thermal Power Project: Governments of Madhya Pradesh and Gujarat agreed to set up two thermal power stations at Bharsera in Sidhi district in Madhya Pradesh with equal sharing of cost and benefits. The Madhya Pradesh Electricity Board proposes installation of 4×500 MW at an estimated cost of Rs 990.6 crores for commissioning from the year 1987-88 onwards. The project envisages utilisation of low grade coal from Singrauli coal fields and water by construction of a dam on the river Gopad.

Mand Thermal Power Project: This 6×210 MW thermal project on Mand river in Raigarh district is another joint proposal of the Madhya Pradesh and Gujarat Governments. The project report for Mand is ready and it is learnt that it would be submitted to the Central Electricity Authority after obtaining concurrence from the Gujarat Government.

Energy Development Corporation

The Madhya Pradesh Government has decided to set up an energy development corporation to promote micro and mini hydel power generation and to formulate schemes for tapping other sources of energy. The Corporation would have an authorised capital of Rs 10 crores and the initial investment would be Rs 2 crores.

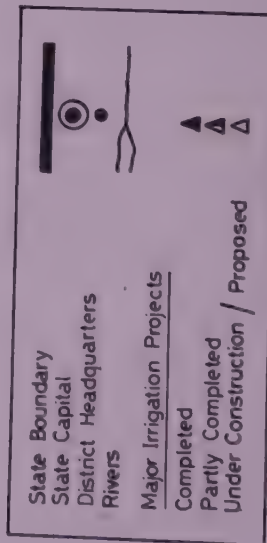
The Corporation would undertake research and development work in the fields of solar and windmill energy and set up information centres to promote the use of non-conventional and renewable sources of energy.



The new Korba power station in Bilaspur district of the Madhya Pradesh Electricity Board.

MADHYA PRADESH

Major Irrigation Projects



IRRIGATION

MADHYA Pradesh contributes about ten per cent of the country's food-grain production and 20 per cent of the country's pulse production. However, its agricultural productivity is very low due to dependence on rainfed crops. Further, only 13 to 14 per cent of the cultivated area is sown more than once in the absence of adequate irrigation facilities. The Sixth Five Year Plan of Madhya Pradesh, underlining the importance of increased inputs, high yielding varieties, irrigation, etc. stated that increase in agricultural production in Madhya Pradesh in the 50's was mainly due to additions in the cultivable area and use of modern inputs. Now there is hardly any scope for increasing land under cultivation.

Irrigation is of great importance for developing agriculture and consequently the economy of Madhya Pradesh because agriculture contributes the bulk of the State's income and over four-fifths of the workforce is dependent on agriculture and allied activities for livelihood. The State has a very fertile soil and there is tremendous scope to increase agricultural production, provided adequate irrigation facilities are made available. The State is endowed with good surface water resources. However, the rivers in the State are rainfed. During the monsoon the river

currents are overfull. But during the rest of the year the water levels shrink by very great proportions.

Major rivers

The main rivers of the State are the Chambal, the Betwa, the Son, the Narmada, the Tapi, the Mahanadi and the Indravati. While the Chambal, the Betwa and the Son flow northwards and join the Yamuna/Ganga river basins, the Narmada, the Tapi and the Mahi flow westwards to the Gulf of Cambay. The Indravati joins the Godavari flowing eastwards and the Mahanadi joins the Bay of Bengal. The drainage areas and annual run-off of the major rivers in Madhya Pradesh are given in Table 12.

Water resources

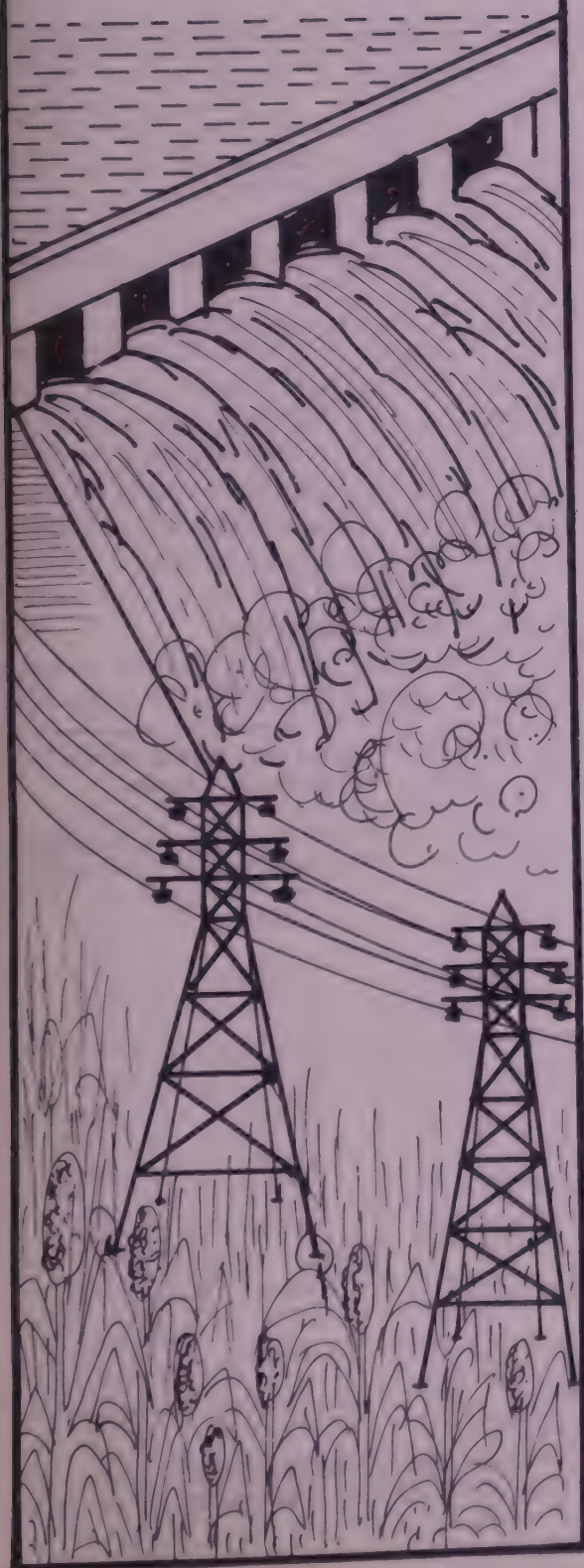
The surface irrigation potential of the State is assessed by the Central Water Commission at 99.3 lakh hectares. This together with 30 lakh hectares potential from ground water when fully harnessed can irrigate about 57 per cent of the net sown area. Water available from the seven major rivers is estimated at 150 million acre feet MAF and that from ground water is estimated at 26 MAF. As per a preliminary study, 70 per cent of the surface water and 50 per cent of

Table 12 : Major rivers in Madhya Pradesh

Name of river/basin	Drainage area within Madhya Pradesh (sq. km.)	Average annual run-off (Million cubic metres)
1. Narmada	85,946	37,004
2. Mahanadi	77,192	39,471
3. Yamuna basin:		
(a) Parwati)		
(b) Sindh)	90,662	25,656
(c) Betwa)		
(d) Ken	23,490	9,374
(e) Chambal	22,600	4,441
4. Godavari basin:		
(a) Indravati)		
(b) Wainganga)	65,265	34,537
(c) Sabari)		
(d) Pench)		
5. Ganga basin:		
(a) Son)	42,436	21,833
(b) Rihand)	14,170	6,537
(c) Tons	9,496	1,947
6. Tapi	8,229	2,467
7. Mahi and other basins		
Total		1,83,294

SOURCE:

Government of India, Ministry of Irrigation and Power, Report of the Irrigation Commission, 1972 Volume II.



the ground water is utilisable which can irrigate 69.5 lakh hectares and 15 lakh hectares respectively.

Irrigation potential created

As against an ultimate irrigation potential of 84.5 lakh hectares that can be attained in Madhya Pradesh a potential of 30.9 lakh hectares was created by the end of 1979-80. Irrigation potential of 1.8 lakh hectares was added during 1980-81 and 2.2 lakh hectares during 1981-82 bringing the total to 34.9 lakh hectares. The State's Sixth Plan has targeted a cumulative irrigation potential of 43.4 lakh hectares by March end 1985 adding 8.5 lakh hectares through government sources and four lakh hectares through private sources to the potential of 30.9 lakh hectares already created. The Sixth Plan envisages an increase in the irrigation potential from 16.4 per cent to 23 per cent of the net sown area.

Irrigation potential created during the various plan periods is shown in Table 13.

There has been good progress since the annual plans 1966-69. Probably, as a result of the improvement in irrigation facilities, there was a steady increase in the net sown area of the State as can be seen from Table 14.

Utilisation of irrigation potential: Fuller utilisation of irrigation facilities is as important as the increase in the sown area. Table 13 shows that the percentage utilisation of irrigation potential has gone down from 87 per cent in 1955-56 to 74 per cent in the Third Plan period. There

was some improvement in the Fourth and Fifth plan periods. There was again a setback during 1979-80 and 1980-81. During 1979-80, 21.4 lakh hectares of land was actually irrigated against a potential created for 30.9 lakh hectares. Similarly, during 1980-81 23.3 lakh hectares of land was irrigated against a potential of about 33 lakh hectares. The utilisation lag for Madhya Pradesh was 31 per cent as against only 10.5 per cent for the whole

country during 1979-80. It is obvious that this lag in Madhya Pradesh has to be minimised with better command area development. But command area development would be a time consuming process since Madhya Pradesh has a large number of small operation land holders — about 65 per cent have 0.5 to 3 hectares each.

Irrigation by sources

Irrigation in Madhya Pradesh is done mainly by canals and wells. Over the past

Table 13: Planwise and sourcewise irrigation potential created and area irrigated in Madhya Pradesh

(Lakh hectares)

End of the Plan period	Irrigation potential created			Area irrigated		
	Government	Private	Total	Government	Private	Total
First Plan (1955-56)	4.8	4.6	9.4	3.6(75)	4.6(100)	8.2(87)
Second Plan (1960-61)	5.5	5.1	10.6	4.1(75)	5.1(100)	9.2(87)
Third Plan (1965-66)	8.6	4.7	13.3	5.1(59)	4.7(100)	9.8(74)
Three Annual Plans (1966-69)	11.5	5.8	17.3	7.4(64)	5.8(100)	13.2(76)
Fourth Plan (1973-74)	12.1	7.9	20.0	8.6(71)	7.9(100)	16.5(82)
Fifth Plan (1978-79)	17.7	11.0	28.7	12.2(69)	11.0(100)	23.2(81)
Annual Plan (1979-80)	19.03	11.82	30.9	12.3(64)	9.1(100)	21.4(76)
1980-81	N.A.	N.A.	32.7	N.A.	N.A.	69
1981-82	N.A.	N.A.	34.9	N.A.	N.A.	N.A. (71)

NOTE: Figures in brackets indicate percentage of irrigation potential utilised.

SOURCE:

Communication from Directorate of Information and Publicity, Government of Madhya Pradesh, Bhopal.



Barna Irrigation Project, district Raisen

Table 14: Net sown area during various Plan periods in Madhya Pradesh

End of the Plan period	Net sown area (Lakh hectares)	Percentage increase
Pre-Plan (1950-51)	139.75	—
First Plan (1955-56)	156.21	11.8
Second Plan (1960-61)	161.11	3.1
Third Plan (1965-66)	165.29	2.6
Annual Plan (1968-69)	180.74	9.4
Fourth Plan (1973-74)	185.60	2.7
Fifth Plan (1978-79)	188.47	1.5
Annual Plan (1979-80)	184.90	—

SOURCE:

Communication from Directorate of Information and Publicity, Government of Madhya Pradesh, Bhopal.

25 years since 1955-56, canal irrigation was roughly between 43 and 48 per cent. Irrigation by wells appears to have improved during the same period from 36 per cent to 42 per cent. However, the use of tanks for irrigation has gone down from 14.4 per cent in 1955-56 to 5.8 per cent in 1980-81. Table 15 gives percentages of net irrigated area by different sources for some selected years from 1955-56 to 1980-81.

As for irrigation sources in districts, there are certain districts predominantly using either canal irrigation or well irrigation. To name a few, Balaghat, Bilaspur, Durg, Hoshangabad, Gwalior, Morena and Raipur districts mainly use canal irrigation. Similarly, Chhatarpur, Chhindwara, Dhar, Mandasaur, Shivpuri and Tikamgarh districts mainly use well irrigation.

Planwise outlays

The outlay on irrigation of the Irrigation Department during the Fifth Plan was stepped up to Rs 352 crores — almost four times that of Rs 100 crores in the Fourth Plan. Even after this sharp rise, the outlay on irrigation was considered to be insufficient in relation to the requirement. The Plan-wise outlays and expenditure are given in Table 16.

The total outlay on irrigation in the Sixth Plan is about Rs 1,053 crores or about 28 per cent of the total outlay of this outlay, as much as Rs 984.4 crores or about 26 per cent goes to the Irrigation Department. Incidentally, the irrigation outlay is the second highest after the power outlay of Rs 1,500 crores or about 40 per cent of the total outlay of Madhya Pradesh. Year-wise tentative outlays of the Irrigation Department for the Sixth Plan are given in Table 17.

Main features of the Sixth Five Year Plan

The Planning Commission has approved 22 ongoing and 12 new major irrigation projects for which Rs 504 crores and Rs 93 crores respectively have been provided in the Sixth Plan. Sixty-three continuing medium projects have been okayed with a provision of Rs 124 crore. Other works in major and medium projects include modernisation schemes and water development services for which a total amount of Rs 59 crores has been earmarked.

Table 15 : Net irrigated area by different sources in Madhya Pradesh

(Per cent)

Year	Canals	Wells	Tanks	Other sources	Total
1955-56	44.9	36.1	14.4	4.6	100
1960-61	47.7	35.1	13.2	4.0	100
1965-66	47.2	35.3	12.1	5.4	100
1970-71	47.9	37.9	8.7	5.5	100
1975-76	44.4	40.2	7.3	8.1	100
1976-77	44.1	39.1	9.0	7.8	100
1977-78	45.2	38.1	6.7	10.0	100
1978-79	46.0	38.7	6.0	9.3	100
1979-80	42.7	40.6	6.6	10.1	100
1980-81	44.4	42.3	5.8	7.5	100

SOURCE: Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics* (various issues).

Table 16 : Planwise outlays allocated to Irrigation Department

Plan	Total Sixth Plan outlay of the State (Rs crores)	Outlay for Irrigation Department (Rs crores)	Per cent to total outlay (Rs crores)	Expenditure incurred (Rs crores)
Pre-Plan (Before 1951)	—	—	—	—
First Plan (1951-56)	67.3	11.6	17.2	11.8
Second Plan (1956-61)	190.9	36.2	19.0	37.5
Third Plan (1961-66)	300.0	49.4	16.5	53.6
Three Annual Plans (1966-69)	179.0	30.9	17.3	33.0
Fourth Plan (1969-74)	455.0	100.0	23.9	109.0
Fifth Plan (1974-79)	1,380.0	352.0	25.5	427.3
Annual Plan (1979-80)	455.0	118.7	26.1	128.5 + 34.5 scarcity works
Sixth Plan (1980-85)	3,800.0	984.4	25.9	—
1980-81	541.0	126.6	23.4	178.6 + 15.0 scarcity works
1981-82	640.0	147.5	23.0	188.5 (anticipated)
1982-83	725.0	170.4	—	—

* Excludes outlay on flood control, micro irrigation and minor irrigation undertaken by the Agriculture Department.

SOURCE: *Compendium from Engineer-in-chief, Irrigation Department, Government of Madhya Pradesh, Bhopal.*

Table 17: Sixth Plan outlay on irrigation in Madhya Pradesh

(Rs crores)				
	Major & Medium	Flood Control	Minor	Total
1980-81	100	0.8	26	126.8
1981-82	120	0.9	27	147.9
1982-83	150	1.0	37	188.0
1983-84	185	1.1	50	236.1
1984-85	225	1.2	60	285.2
Sixth Plan	780	5.0	200	985.0*

* Excludes outlay on micro irrigation and minor irrigation by Agriculture Department. Actual outlay comes to Rs 984.4 crores. However, the Irrigation Department has given the rounded figures.

SOURCE: Communication from Engineer-in-chief, Irrigation Department, Government of Madhya Pradesh, Bhopal.

Other allocations are about rupees five crores for flood control, Rs 122 crores for 1,228 ongoing and new major schemes under the Tribal sub-plan, about Rs 101 crores for similar 1,619 minor schemes in non-tribal areas and Rs 16 crore for other works. The allocations for the sub-plan area include the Central assistance of Rs 39 crores.

With the above outlays, it has been estimated that irrigation potential of 8.5 lakh hectares would be created during the Sixth Plan i.e. 6.5 lakh hectares from major and medium projects and two lakh hectares from minor schemes. Thus, irrigation potential from government sources is proposed to be increased to 27.53 lakh hectares i.e. 14.6 per cent of the net area sown. The year-wise target of irrigation potential proposed for the Sixth Plan is given in Table 18

Completed and on-going major irrigation projects

At present there are 28 on-going major irrigation projects in the State with a designed irrigation potential of about 26 lakh hectares and an estimated cost of Rs 2,131 crores. A large number of these projects are inter-state and a number of them are likely to be completed from the Seventh Plan onwards. Out of eight inter-state projects, six are in advanced stage of progress while the remaining two (Upper Tapi and Bawanthadi) are in the pre-construction stage. The details of completed and on-going major irrigation projects in the state are given in Table 19.

The budget provision for 1981-82 was Rs 17.34 crores. The total outlay in the

Sixth Plan is Rs 90.39 crores. In addition to this, there is a provision of Rs 6.69 crore for pre-construction works of Upper Tapi and Bawanthadi inter-State projects (M.P. — Maharashtra).

Medium projects with World Bank aid

The World Bank has agreed to provide aid for 30 medium projects estimated to cost Rs 290 crores with a total potential of 2.6 lakh hectares. An agreement with World Bank has already been signed under which an assistance of Rs 112 crores will be received for five years from 1981-82 to 1985-86.

Tribal sub-plan

Of the State's geographical area of 443 lakh hectares, 168 lakh hectares or 38.2 per cent is inhabited by the tribals who constitute more than 20 per cent of the State's population. For their development a special plan called "Tribal Sub-Plan" was formulated in 1974-75. The Tribal Sub-plan was originally spread over 174 blocks out of 459 blocks in the State.

The 174 blocks were originally covered under 31 tribal projects and 11 micro projects. Recently, the number of projects has been increased to 62 with 262 blocks under them. The net area sown in 1976-77 was 49.2 lakh hectares, i.e., 31 per cent of the total area under the Sub-plan. The irrigation potential of 1.6 lakh hectares i.e. 3.3 per cent of net area sown has been created at the end of 1979-80.

At the end of 1980, the State Government constituted five tribal development authorities with headquarters at Bastar, Bilaspur, Jabalpur, Rewa and Indore to coordinate and monitor all the development activities in their respective tribal sub-plan area.

It was estimated that to create irrigation potential of 23,000 hectares during 1980-81 raising the potential from 3.3 per cent (1979-80) to 3.8 per cent. In 1981-82 an additional potential of 28,000 hectares was targeted with a provision of Rs 29 crores including the central assistance of Rs 8.6 crore. The Sixth Plan includes a target of 1.7 lakh hectares, i.e., 0.7 lakh hectares by completing two major projects (Pairi and Thanwar) and 17 medium schemes and one lakh hectares by completing 599 minor schemes. This would raise the potential to 6.6 per cent at the end of Sixth Plan (1984-85).

Harijan Special Component Plan

The Harijan Special Component Plan includes such projects where more than 50 per cent population is Harijan and Harijan cultivators with more than 50 per cent land holdings are likely to be benefited in the command area of irrigation schemes.

The State Government has pin-pointed 472 such Harijan pockets so far. For irrigation schemes under the Harijan Special Component Plan. Central assist-

Table 18: Yearwise targets for irrigation

Year	Major (lakh hectares)	Medium (lakh hectares)	Minor (lakh hectares)	Total	Cumulative percentage of irrigation potential	
					Government sources	All sources
1980-81	1.08	0.12	0.40	1.60	10.9	17.6
1981-82	1.05	0.20	0.40	1.65	11.9	18.9
1982-83	1.00	0.30	0.40	1.70	12.7	20.2
1983-84	0.95	0.40	0.40	1.75	13.6	21.6
1984-85	0.91	0.49	0.40	1.80	14.6	23.0
	4.99	1.51	2.00	8.50		

Table 19: Completed and on-going major irrigation projects in Madhya Pradesh

(Area '000 hectares)

Name of the projects	Districts benefited	Estimated cost (Rs crores)	Designed potential	Potential created 1980-81	Area irrigated 1980-81
I. Completed					
1. Mahanadi Main Canal	Raipur	17.6	85.0	85.0	85.0
2. Tandula Reservoir	Durg	1.2	68.2	68.2	80.4
3. Hasdeo Right Bank Canal	Bilaspur	14.3	42.0	42.0	42.0
4. Barna	Raisen, Sehore	15.3	60.5	60.5	14.4
Sub-total		48.4	255.7	225.7	221.8
II. On-going					
5. Tawa	Hoshangabad	96.1	333.0	198.5	47.3
6. M.R.P.	Raipur, Durg	415.4	340.0	38.5	23.7
7. Halali	Raisen, Vidisha	13.0	37.2	16.1	5.9
8. Bhander	Datia, Gwalior, Bhind	2.3	44.5	44.5	39.9
9. Paity	Raipur	13.7	72.9	51.6	34.8
10. Singh Phase I	Gwalior, Raipur	16.0	37.2	32.0	2.0
11. Hasdeo Bango	Bilaspur, Raigarh	353.0	253.0	—	—
12. Bargi	Jabalpur, Narsimhapur	289.0	245.0	—	—
13. Narmada Sugar	Khandwa, Khargone	170.0	136.3	—	—
14. Singh Phase II	Shivpuri, Datia, Gwalior, Bhind	59.0	91.4	—	—
15. Upper Wainganga	Balaghat, Seoni	50.7	81.0	—	—
16. Arpa	Bilaspur	102.4	72.4	—	—
17. Kolar	Sehore	43.1	25.9	—	—
18. Sukta	Khandwa	10.7	18.6	7.3	0.7
19. Kotar	Raipur	14.0	18.2	—	—
20. Jonk	Raipur	8.3	14.6	—	—
21. Thanwar	Mandla	11.6	11.0	—	—
22. Mahi	Dhar	27.1	23.0	—	—
23. Man	Dhar	34.0	—	—	—
24. Jobat	Dhar	16.4	—	—	—
Sub-total		1,745.8	1,857.0	387.9	154.3
III. Inter-State					
25. Chambal	Bhind, Morena, Mandsaur	86.6	273.3	273.3	167.1
26. Rajghat	Guna, Shivpuri, Tikamgarh, Datia, Gwalior, Bhind	107.8	97.2	—	—
27. Bansagar	Rewa, Sidhi, Satna, Shahdol	111.2	248.8	—	—
28. Bariyarpure Left Bank Canal	Chhattarpur	18.4	43.9	—	—
29. Upper Tapi	Khandwa	38.8	46.7	—	—
30. Dawanthadi	Balaghat	11.8	18.8	—	—
31. Urmil	Chhattarpur	6.4	7.7	—	—
32. Rangwan	Chhattarpur	4.4	13.6	5.1	0.9
Sub-total		385.4	750.0	278.4	168.0
Grand Total		2,179.4	2,862.7	922.0	544.1
SOURCE: Communication from Engineer-in-chief, Irrigation Department, Government of Madhya Pradesh, Bhopal					

ance of rupees one crore was made available in 1980-81. An amount of Rs 0.8 crore has been set aside in the budget for 1981-82. The one Dhangaon Tank scheme in Shahpur block of Mandla district costing Rs 0.21 crore with designed potential of 500 hectares has been administratively approved by the State Government under the HSCP. During the Sixth Plan, Central assistance of Rs 4.2 crores is anticipated to the H.S.C.P.

Flood control

Flood control is also one of the important activities of the Irrigation Department. Flood control works so far taken in the State include village and town protection schemes by construction of marginal bunds, spurs, diversion of nullahs, pitching and installation of hydro-meteorological station etc. During the Sixth Plan period so far, twenty-three flood protection schemes estimated to cost Rs 1.5 crores have been completed so far and 10 schemes estimated to cost Rs 1.6 crores are in progress. The approved outlay in the Sixth Plan for flood control is Rs 4.8 crores.

Lift irrigation

The Madhya Pradesh Lift Irrigation Corporation has completed 10 lift irrigation schemes costing Rs 54 lakhs with a designed potential of 39,000 hectares upto March 1980. Out of 1,429 tubewells drilled, 455 tubewells having a total potential of 6,277 hectares were energised.

During 1980-81, two lift irrigation schemes estimated to cost Rs 20 lakhs with a potential of 1,000 hectares were completed. At present, 14 schemes are in progress and 55 new schemes are proposed to be taken up. Drilling of 890 tubewells likely to cost Rs. 57 crores with a total potential of 21,000 hectares was taken up in 1980-81. Of these, 753 tubewells were drilled creating a potential of 20,000 hectares. The State Government has sanctioned a scheme of 11 tubewells drilled by the Central Ground Water Board in Narmada Valley at an estimated cost of Rs 20 lakhs to irrigate 400 hectares. Besides this, the Agriculture Finance Corporation has sanctioned 50 tubewells in Rewa district, 50 in Satna district and 260 Rajnandgaon district.

Government tubewells

Irrigation Department has completed 3021 cultivator shallow tubewells with a total potential of 26,000 hectares. 125

government shallow tubewells with a potential of 2,000 and 149 government deep tubewells with a potential of 1,000 hectares upto March 1980. All these tubewells have been energised and the cultivators are getting benefit of irrigation from them.

During 1980-81, 41 cultivator shallow tubewells were energised creating a potential of 300 hectares. During 1981-82, 60 cultivator shallow tubewells were proposed to be energised which will create a potential of 500 hectares. Provision for 1981-82 is Rs 0.82 crore.

Perspective plan up to 2000 A.D.

The Madhya Pradesh Government

has drawn perspective five year plans up to 2000 A.D. for creating an additional irrigation potential of 43 lakh hectares by 2000 A.D. through government sources. An addition of 16 lakh hectares is proposed by private sources.

Out of the total surface potential of 69 lakh hectares that can be utilised, 19.1 lakh was created at the end of 1979-80. The target of creating potential up to 2000 A.D. has been tentatively planned as shown in Table 20.

The percentages of the proposed potential from all sources during each of the above Five Year Plans are shown in Table 21.

Table 20: Irrigation Targets

(Lakh hectares)			
	Major and medium	Minor	Total
1980-85	6.5	2.0	8.5
1985-90	7.5	2.5	10.0
1990-95	8.5	3.0	11.5
1995-2000	9.5	3.5	13.0
	32.0	11.0	43.0

SOURCE: Communication from Engineer-in-chief, Irrigation Department, Government of Madhya Pradesh, Bhopal.

Table 21: Cumulative increase in Irrigation Potential

(per cent)			
	Government	Private	All sources
1979-80	10.1	6.3	16.4
1980-85	14.6	8.4	23.0
1985-90	20.0	10.5	30.5
1990-95	26.0	12.0	38.0
1995-2000	33.0	14.0	47.0



Gandhi Sagar Dam on the Chambal river Mandsaur district.

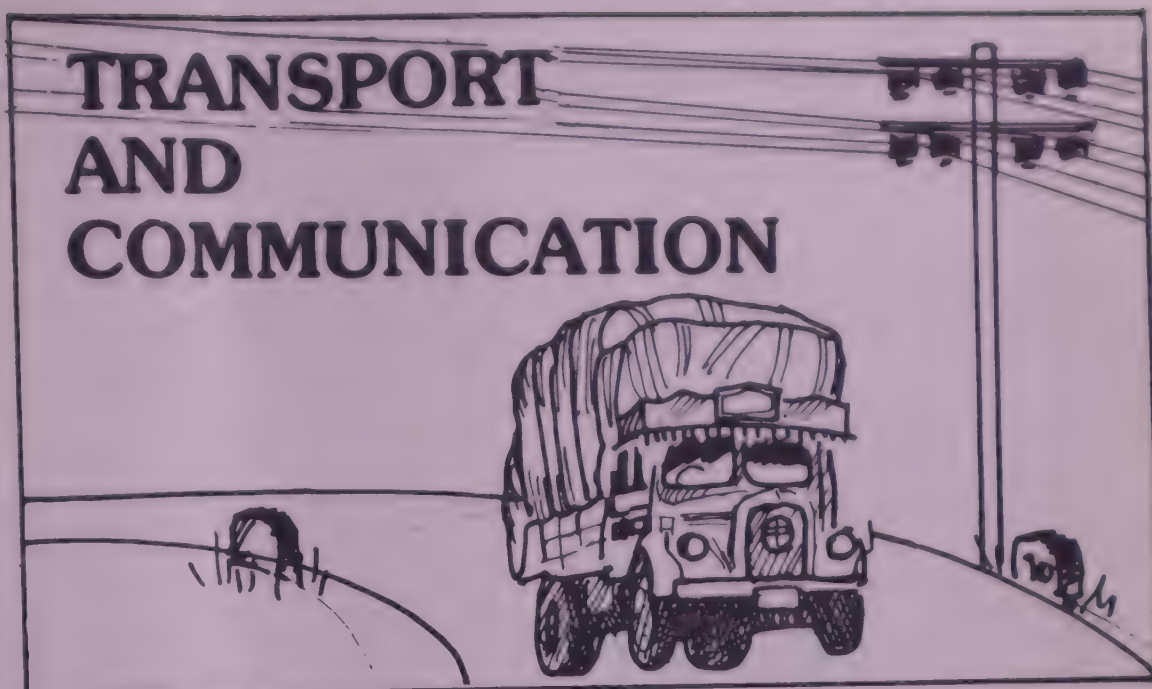
TRANSPORT and communication facilities are the arteries of the economy of any region. Transportation of inputs and disposal of finished products require a well laid transport system. The benefits of investment in various fields of development can reach the people only if adequate communication facilities are made available.

Madhya Pradesh, the largest State in the country in terms of area, is also uniquely located in the central part of the country. It has common boundaries with seven States, namely, Andhra Pradesh, Bihar, Gujarat, Maharashtra, Orissa, Rajasthan and Uttar Pradesh. It is therefore necessary that utmost importance should be given to the development of transport and communication facilities in the proper perspective not only in the interest of the State's economy but also in the interest of the economy of the country.

Although Madhya Pradesh has shown considerable improvement in various modes of transport and communication over the years, the level of development in the State in this regard falls short of the national average. The State Government is making concerted efforts to reach the national levels. According to a survey conducted in 1960, of the total area of Madhya Pradesh, 67.7 per cent area was considered accessible, 16.0 per cent area had difficulty in accessibility while 16.3 per cent area was practically inaccessible.

Roads: Backbone of Transport

Because of the inadequate network of railways, roads form the backbone of the State's transport system. Madhya Pradesh has been endowed with hilly terrain and black cotton soil area in abundant measure which have created problems for road construction. The sheer size of the State requires road lengths of larger magnitude to serve the people which may not be necessary to that extent in a smaller State, with higher density of population. The hilly terrain with several rivers criss-crossing has necessitated the construction of several major bridges and culverts. The black cotton soil through which most of the State Highways pass necessitates extra strengthening of the crust of roads and also widening in many stretches. This work has, however, not been done to the desired extent because of the paucity of funds. This certainly calls for larger financial allocation.



At the end of 1981-82, Madhya Pradesh had a total road length of 65,852 km — 50,852 km of pucca or surfaced roads and 15,000 km of unsurfaced or fair weather roads. The total road length according to class was as follows: National Highways — 2,676 km, State Highways — 11,471 km, major district roads — 15,558 km and village roads — 36,147 km. The density of road length worked out to only 14.9 km per 100 sq. km. of area. The density of surfaced roads in the State was only 11.5 km as against about 20 km for the country

as a whole. If added to this length the length of project roads of about 37,000 km, the road density in Madhya Pradesh works out to 23 km per 100 sq. km. of area when compared with the corresponding density of about 49 km for all-India. In both these respects, Madhya Pradesh fares way down among the States of India. However, at the same time the commendable progress shown by Madhya Pradesh over the Plan periods in increasing the road length cannot be overlooked.

The progress of road length during the various Plans is shown in Table 22.

Table 22 : Plan-wise Progress of Road Length in Madhya Pradesh

End of	Road length					
	Surfaced		Unsurfaced		Total	
	Km	Per 100 sq km of area (km)	Km	Per 100 sq km of area (km)	Km	Per 100 sq km of area (km)
1956 (formation of the State)	19,256	4.3	8,917	2.0	28,173	6.3
Second Plan (1956-61)	22,980	5.1	9,257	2.1	32,237	7.2
Third Plan (1961-66)	25,382	5.7	10,539	2.4	35,921	8.1
Three Annual Plans (1966-69)	28,454	6.4	9,917	2.2	38,371	8.6
Fourth Plan (1969-74)	34,883	7.8	12,178	2.8	47,061	10.6
Fifth Plan (1974-79)	44,453	10.0	13,714	3.1	58,167	13.1
1979-80	45,698	10.3	14,949	3.4	60,647	13.7
1980-81	48,379	10.9	15,000	3.4	63,379	14.3
1981-82	50,852	11.5	15,000	3.4	65,852	14.9

SOURCE: Public Works Department, Government of Madhya Pradesh, Bhopal.

MADHYA PRADESH Roads



	State Boundary
	State Capital
	District Headquarters
	Tahsil Headquarters
	National Highways
	All-weather Roads
	Fair-weather Roads
	Other Roads

NOTE: Illustration not to scale

Thus, it will be seen from Table 22 that there has been an increase of 37,679 km of roads — 31,596 km of surfaced and 6,083 km of unsurfaced roads — in the past two and a half decades. During the same period the density of roads per 100 sq km of area has risen from a meagre 6.3 km to 14.9 km. The density of surfaced roads increased from 4.3 km to 11.5 km and that of unsurfaced roads from 2.0 km to 3.4 km.

In 1956 the State had 2,661 km of black-topped surface roads which provide for smooth running of traffic. By the end of 1980-81 the length of black-topped surface roads has increased enormously to 26,586 km. Despite the impressive network of roads in the State quite a few parts of Madhya Pradesh are cut off from the rest of the country during the monsoon. Even the capital of the State, Bhopal, is not presently connected with all-weather roads with bridges and culverts with all divisional and district headquarters. Similar is the position of district headquarters with tahsil and block headquarters.

Because of Madhya Pradesh's central location in the country, State Highways and National Highways have to bear the major brunt of the traffic of heavily loaded vehicles. This deteriorates the condition of these roads and calls for their strengthening and widening. There are four National Highways passing through the State. They are: Agra-Bombay, Nagpur-Raipur, Rewa-Nagpur and Rewa-Allahabad. In 1955-56, the length of National Highways in Madhya

Pradesh was 2,030 km which increased to 2,676 km by the end of 1981-82 which is grossly inadequate considering the increase in the volume of traffic. The average length of National Highways in the State works out to only six km per 1,000 sq km of area as against the national average 1979-80 of nine km per 1,000 sq km of area. Except for a small portion of Biaora-Jaipur Road, no National Highway has been sanctioned for the State in the last 22 years. The State Government has sent proposals to the Centre for declaring more National Highways for the State.

1956 till the end of 1980-81, 372 major bridges were completed. In addition to these, 43 major bridges were completed on the National Highways during the same period with an investment of Rs 36.80 crores. The progress of construction of bridges during the various Plan periods is shown in Table 23.

To expedite the construction of major bridges, the State Government constituted on October 4, 1978, the Madhya Pradesh Setu Nirman Nigam. The Corporation conducted a thorough survey

Table 23 : Plan-wise Progress of Bridge Construction in Madhya Pradesh

Plan period	Number of major bridges completed
Second Plan (1956-61)	65
Third Plan (1961-66)	89
Three Annual Plans (1966-69)	43
Fourth Plan (1969-74)	61
Fifth Plan (1974-78)	77
1978-79	5
1979-80	12
1980-81	20
Total	372

SOURCE: Public Works Department, Government of Madhya Pradesh, Bhopal.

Importance of bridges

Bridges and culverts form an important and most essential link in the road network, especially in a state like Madhya Pradesh with numerous criss-crossing rivers. Since the formation of the state in

of all the major bridges and prepared a master plan. So far, the Corporation has completed 28 major bridges with a length totalling 4,882 metres. It also has on hand construction of 82 major bridges with a total length of 12,524 metres. Of the major bridges constructed, two bridges deserve special mention — the bridge across the Narmada on the Agra-Bombay National Highway No. 3 at Khalghat and the bridge also across the Narmada in East Nimar (Khandwa) district. For the construction of bridges, special attention is being given to the tribal areas. In the tribal areas, the Madhya Pradesh Setu Nirman Nigam completed nine major bridges. Twenty-three bridges are under construction while 44 bridges are yet to be taken up.

During 1980-81 the Government made special efforts to construct small bridges and culverts on the roads already constructed or under construction with the result, 123 medium bridges and 2,027 culverts were completed. In addition, 20 major bridges were also completed. There are 271 medium bridges and 1,680 culverts under construction.

Road links in villages

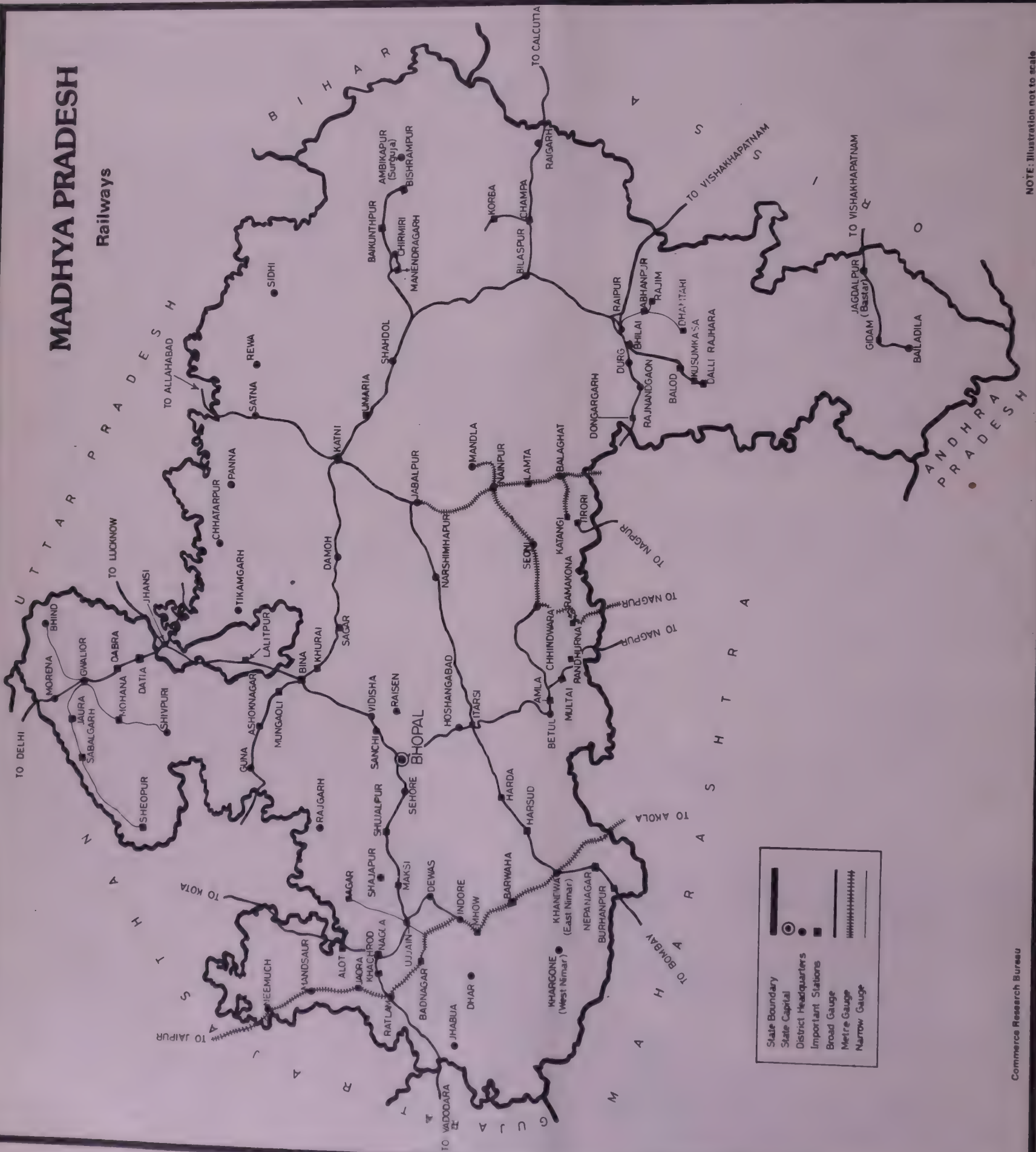
As regards the provision of roads in villages, the Planning Commission had



A bridge on the Kshipra river in Dewas district

MADHYA PRADESH

Railways



NOTE: Illustration not to scale

laid down the norms that all villages having population of 1,500 and above and 50 per cent of the villages having population of 1,000 to 1,500 should be linked by roads in the ten-year period beginning April 1, 1980. However, it is difficult to apply these norms rigidly to Madhya Pradesh as it has a large percentage of population spread over small villages with populations of less than 1,000. The State Government accordingly drew up a programme to connect all the villages in the state with a population of more than 1,500 by surface roads. At the end of 1981-82, of the 70,883 villages in the State only 14,735 villages or 20.8 per cent were connected by surface roads while as many as 56,148 villages or 79.2 per cent remained to be connected. The position of villages connected with surface roads according to population groups is given in Table 24.

has been made during 1982-83 to add 50 more road rollers to the fleet.

Tribal area sub-plan

Considerable progress has been registered as regards road construction under the Tribal sub-plan. In all, there are 24,249 villages under Tribal sub-plan area — 2,114 villages above 1,000 population and 22,135 villages with population less than 1,000. Till the end of March 1980, 1089 villages out of 2,114 villages with population above 1,000 were connected by roads. The Sixth Plan target for this category is 286 villages. As against this, in the first two years of the Plan 153 villages have been connected by roads. As regards villages with less than 1,000 population, 447 villages were connected by roads in the first two years of the Plan. Out of 59 tahsil headquarters and 173 block headquarters in tribal area, 58

headquarters is under construction. The State Government has also proposed to connect all the market/growth centres in tribal area by road by the end of March 1984. As against this, out of the total 1,054 market/growth centres in the tribal area 613 centres were connected by road at the end of March 1980.

Inadequate investment during plan periods

Although considerable expenditure has been incurred on the roads and bridges sector during the plan periods, this has fallen short of the actual requirement of the State. The expenditure incurred during the various Plans is shown in Table 25.

If the various schemes of development of roads and bridges are to be completed in right earnest, the State Government has estimated its requirement during the Sixth Plan at Rs 447 crores. As against this the outlay available for roads and bridges for the Plan is only Rs 130 crores. The scheme-wise requirements are mentioned in Table 26.

Road transport

The growth of traffic on roads in Madhya Pradesh can be judged from the increase in the number of registered motor vehicles in the State in the past two decades. The number of registered motor vehicles increased from 22,332 in 1957-58 to 2,74,109 by the end of 1979-80. The number of buses during the same period went up from 2,972 to 10,674 and that of trucks from 6,771 to 33,263.

with a view to providing assured and organised mode of road transport the State Government established on June 1, 1962 Madhya Pradesh State Road

Table 24: Villages connected with Surface Roads in Madhya Pradesh: March-end 1982

Population group	Total number of villages	Number of villages connected with surface roads
I. Villages with population above 1,500	2,990	2,141
II. Villages with population between 1,000 and 1,500	4,347	1,956
III. Villages with population less than 1,000	63,546	10,638
Total	70,883	14,735

SOURCE: Public Works Department, Government of Madhya Pradesh, Bhopal.

The State Government is making efforts to construct roads particularly under the Minimum Needs Programme, i.e., connecting villages having population of 1,000 and above. There are still 3,434 villages, each with a population of 1,000, to be connected with pucca roads. The main problem facing the Government is that of financial resources. During the period of drought, the State Government undertook on a massive scale the work of construction of roads to provide employment to people affected by drought. However, most of these works remained incomplete after the drought phase was over for want of funds.

Inadequate number of road rollers with the Public Works Department is one of the factors for the slow progress of road construction. At the end of 1981-82, there were 999 road rollers against the requirement of 1312. A provision

of tahsil headquarters and 163 block headquarters have been connected by roads so far. The work on the unconnected

Table 25: Plan-wise Expenditure on Roads and Bridges in Madhya Pradesh

Plan period	Expenditure (Rs crores)
First Plan (1951-56)	5.86
Second Plan (1956-61)	8.61
Third Plan (1961-66)	14.70
Three Annual Plans (1966-69)	9.40
Fourth Plan (1969-74)	37.06
Fifth Plan (1974-78)	44.25
1978-79	15.48
1979-80	21.31
1980-81	34.28
Total	190.95

SOURCE: Public Works Department, Government of Madhya Pradesh, Bhopal.

Table 26 : Physical and Financial Requirement of Madhya Pradesh on Roads and Bridges in the Sixth Plan

Particulars	Physical requirement (km)	Financial requirement (Rs crores)
1. Carry over road works as on 1.4.1980	14.625	91.37
2. Minimum Needs Programme to connect villages having population of 1,000 and above with pucca roads	17.500	175.00
3. Roads to connect marketing centres/growth centres of tribal areas	1.650	16.50
4. Roads connecting predominantly Harijan villages	1.500	15.00
5. Completion of incomplete scarcity works	22.000	88.00
6. Construction of medium bridges on completed roads	...	20.00
7. Construction of major bridges	...	30.00
8. Missing links	1.143	11.43
Total		447.30

Transport Corporation. The Corporation, which is the biggest of its kind in the country, has shown commendable progress in the two decades of its working. At the end of 1981-82, the Corporation had 2,578 buses which were plying on 1,438 routes with a length of 1,86,842 km covering total route kilometres of 5.30 lakhs every day and carrying, on an average, about six lakh passengers per day. The progress of operation of the Corporation is shown below.

Particulars	1962-63 (Number)	1981-82 (Number)
1. Divisions	2	11
2. Depots	12	45
3. Sub-depots	17	31
4. Buses	702	2,578
5. Routes	361	1,438
6. Route length (Km)	41,424	1,86,842
7. Average daily route kilometres operated (Km)	1,19,877	5,30,080
8. Passengers carried per day	...	6,00,000
(...) = Not available		
SOURCE: Communication from Madhya Pradesh State Road Transport Corporation, Bhopal		

The corporation operates 290 buses on 170 inter-State routes as also runs 70 night services. So far, 37 districts have been directly connected with the State capital, Bhopal, by the corporation's services. As against the objective of cent per cent nationalisation of routes in the State, about 45 per cent nationalisation has been achieved.

In 1981, the corporation started city bus service in Bhopal and it has plans to extend such services to other cities and towns. In view of the difficulties faced by the people in transporting goods from one place to another, the Corporation

has started a goods transport service from Bhopal to Indore. The services are proposed to be introduced in other divisions and on other major routes.

Project Bullock-cart

The State Government has introduced a novel "Project Bullock-cart". Under this project, 19 bullock cart manufacturing units would be set up by the end of December 1982. While the project would manufacture and supply bullock-carts,

commercial banks would finance their purchases by landless farm workers and other rural poor. These carts would be deployed in the transport of forest produce thereby providing assured employment and income to the poor families. So far, seven projects have been set up, one each in the districts of Betul, Chhindwara, Indore, East Nimar (Khandwa), Morena, Raipur and Raisen.

Railways

Railways are considered to be the cheap and the quick mode of transport for the common man. Considering the vast area of Madhya Pradesh, the develop-

ment of railways has been rather neglected. Over the past 25 years there has been very insignificant improvement in the railway route length. In 1955-56, the railway route length in the State was 4,891 km — 3,313 km broad gauge, 429 km metre gauge and 1,149 km narrow gauge — which worked out to only 11 km. per 1,000 sq km of area. By the end of March 1981 the route length increased to 5,732 km or 13 km per 1,000 sq km of area as against the all-India average of 19 km. This level in Madhya Pradesh, unfortunately is one of the lowest in the country.

In view of the growing demand of the State, the Railway Board has proposed a few years back to construct either some new railway lines in the State or convert the existing lines into broad gauge the surveys for which have either been completed or are nearing completion. These lines are:

- (i) *Badwadih-Vishrampur*: This 154 km line would connect Vishrampur in Surguja district to Bihar and help transport of coal and bauxite deposits of Surguja district.
- (ii) *Lalitpur-Singrauli*: This 560 km line would start from Lalitpur in Uttar Pradesh and connect the districts of Tikamgarh, Chhatrapur, Satna, Panna, Rewa and Sidhi in Madhya Pradesh.
- (iii) *Raipur-Dhamtari*: This existing 354 km metre gauge line is proposed to be converted into broad gauge and the broad gauge line to be extended to Dalli-Rajhara and Jagdalpur.
- (iv) Conversion of the 275 km metre gauge Jabalpur-Gondia line into broad gauge.
- (v) Conversion of the 28 km metre gauge Chhindwara-Parasia line into broad gauge.
- (vi) Broad gauge line from Guna to Shivpuri connecting Gwalior, Bhind and Etawah. For this 376 km line, only 92 km of new line would be required to be constructed while the existing metre gauge line would be converted into broad gauge.
- (vii) It is proposed to construct a new line of 65 km between Bhatapara and Akaltara.

Air transport

This mode of transport is used only by a select few, as it is beyond the economic reach of the people in general. Even then its mention is necessary. Presently air services are available at Bhopal, Indore, Gwalior, Jabalpur and Khajuraho.

Post Offices
(As on November 15, 1981)

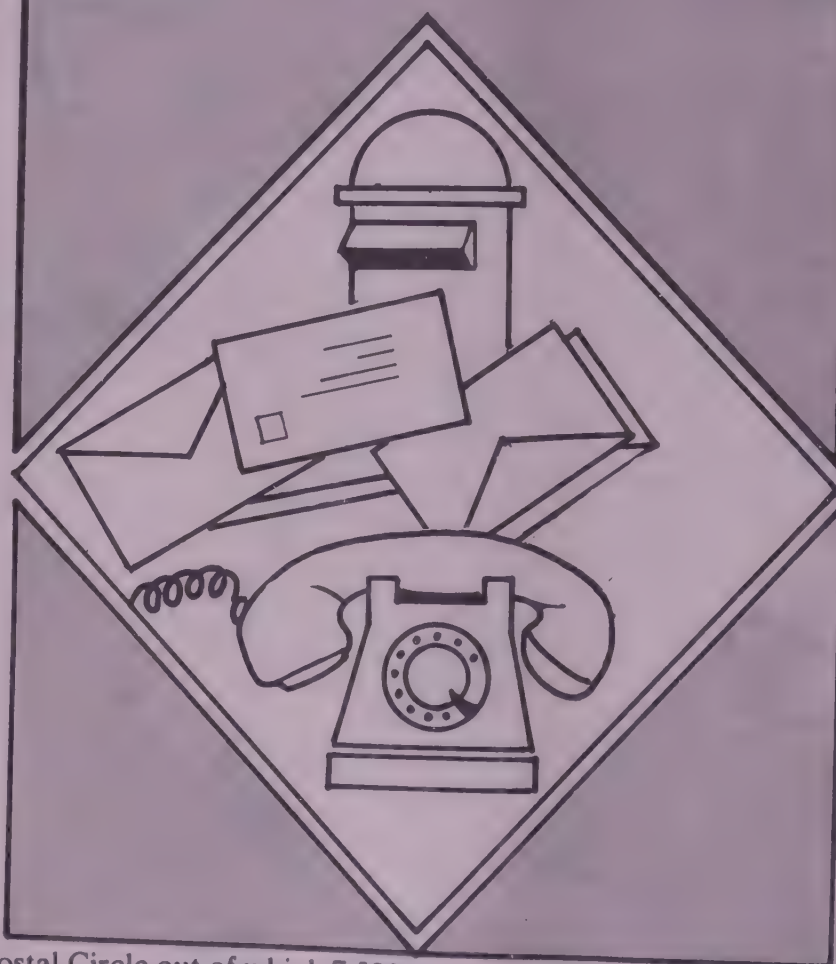


LIKE railways, provision of postal and telecommunication facilities is a Central subject. Six years after the formation of Madhya Pradesh, i.e. on April 1, 1962, a Posts and Telegraph Circle for the State was constituted with its headquarters at Nagpur. However, on July 1, 1965, an independent Postal Circle for the State was formed with its headquarters at Bhopal which covers the entire State of Madhya Pradesh and 21 villages of Maharashtra.

In 1957-58, there were 3,854 post offices in Madhya Pradesh. The number went up to 9,934 — 886 in urban areas and 9,048 in rural areas — by the end of March 1981 and further to 10,090 — 888 in urban areas and 9,202 in rural areas — by December 15, 1981. However, in respect of area and population served per post office, the situation in the State is not very comfortable. At the end of 1980-81 on an average, each post office in Madhya Pradesh served an area of 44.6 sq. km and a population of 5,248 as against the all-India averages of 23.6 sq km and 4,912 persons respectively. Among the states, the area served per post office in Kerala was the lowest at 8.5 sq km, while the population served per post office was the lowest in Himachal Pradesh at 1,816. Even within the State there have been glaring disparities in respect of spread of postal facilities among the districts. While Surguja district was the most backward in these facilities in that the area and population served per post office in this district were the highest at 97 sq. km. and 7,061 persons respectively, Datia district was well served by these facilities where the area and population served per post office were the lowest at 21 sq. km. and 3,213 persons respectively.

With a view to improving the postal facilities in the rural areas, the Circle has concentrated its developmental activities in rural areas. There are 14,493 gram panchayat villages in the the p. one plac,

POST AND TELECOMMUNICATION FACILITIES



Postal Circle out of which 7,580 villages have been provided with post offices and 3,292 villages have been provided with counter services from the nearest mobile post offices. All

the villages in the Circle have been provided with daily delivery service. Efforts are afoot to open post offices in the gram panchayat villages which are neither having a post office nor served by a mobile post office.

The state comprises certain areas which are classified as backward, hilly and tribal. Special attention has been paid to the development of communication facilities in these areas as can be seen from the details given below.

Over the last two decades there has been substantial increase in the number of letter boxes in the state. The number went up from 6,100 in 1957-58 to 39,527 in 1980-81.

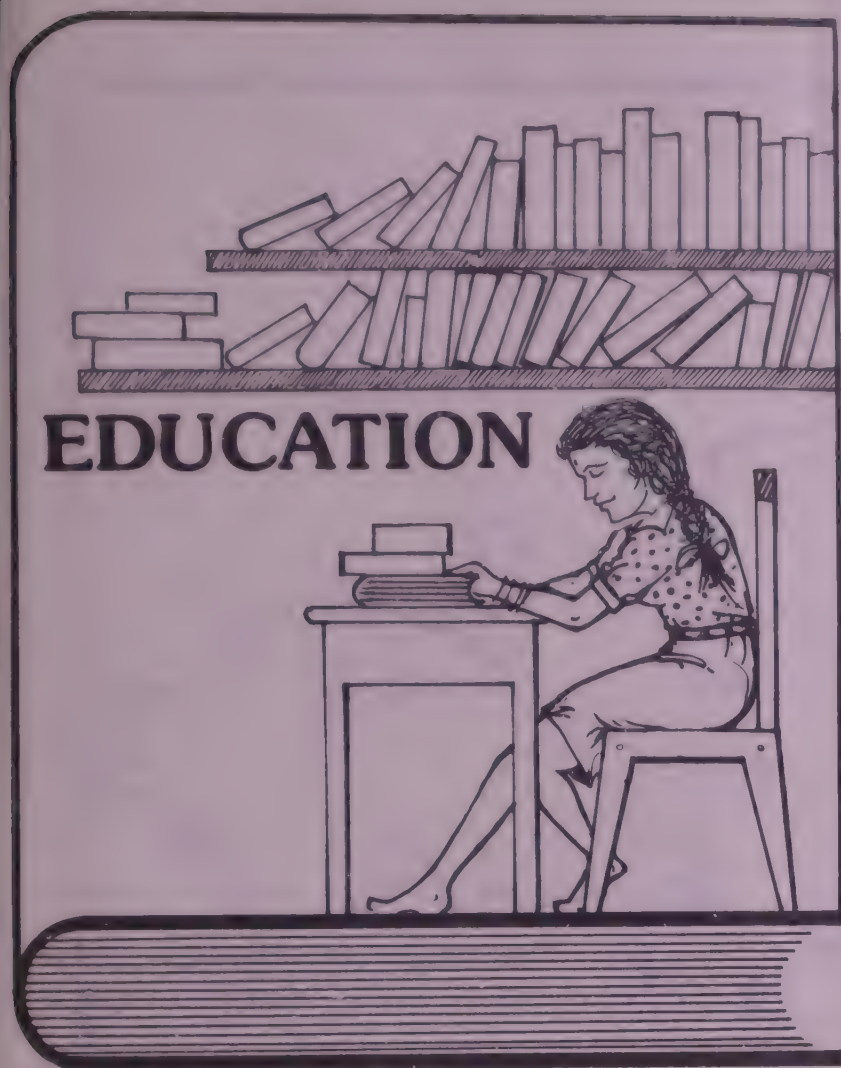
At the end of 1979-80 there were 441 telephone exchanges, 10 telex exchanges, 94 STD services, 1,008 long distance public call offices and 1,274 telegraph offices. The number of working telephone connections which was only 5,771 in 1957-58 went up to 70,257 by the end of 1979-80.

As regards broadcasting facilities, there are nine radio stations in the state at Ambikapur, Bhopal, Chhatarpur, Gwalior, Indore, Jabalpur, Jagdalpur, Raipur and Rewa. At the end of December 1979, the number of radio licences in the state was 9.34 lakhs which worked out to 18 per 1,000 population as against the all-India average of 32 per 1,000 population.

Post offices in various areas of Madhya Pradesh

Particulars	As on April 1, 1975	As on September 15, 1981
Number of branch post offices in:		
(a) Backward areas	1,844	4,721
(b) Hilly areas	—	35
(c) Tribal areas	204	1,921
Total	2,048	6,677

SOURCES: Communication from Post Master General, Madhya Pradesh Postal Circle, Bhopal.
2. Sandarbha: 1982 Madhya Pradesh, Labhchand Prakashan, Nai Duniya Complex, Indore



FOR the development of any country or a region, the first pre-condition is education. That is why, the government has given special attention to the spread of educational facilities in the post-Independence period. As a result, during the various Plans, educational institutions were established in large numbers while the level of literacy also showed significant improvement. Despite the significant achievement in this field, a lot more is still to be done. In a state like Madhya Pradesh where a large section of its population happens to be of scheduled castes and scheduled tribes, education has a distinct role to play.

Two-thirds population still illiterate

Although the literacy percentage in Madhya Pradesh showed substantial improvement from 17.1 in 1961 to 27.8 in 1981, it ranked 24th (excluding Assam) among the Indian states and

union territories in this respect. Even the all-India literacy in 1981 was much higher at 36.0 per cent. In other words in 1981, in Madhya Pradesh 3.76 crore people or 72.2 per cent of the total population were illiterate. As is generally the case elsewhere in the country, the male literacy is higher than the female literacy in the State. In 1981, 39.4 per cent of the male population in the State was literate as against only 15.5 per cent for females. As regards urban-rural break-up, 54.0 per cent of the State's urban population and 21.2 per cent of the rural population were literate. Concerted efforts are being made for the universalisation of elementary education in the State.

School education

In 1956-57 there were 22,762 primary schools, 1,604 middle schools, and 414 higher secondary schools. In 1981-82 the position was 63,600 primary schools, 10,630 middle schools and 2,295 higher secondary schools. At the time of reorganisation of the state, 15.36 lakh students were enrolled in primary schools. In 1980-81 the number of students in all schools was 68 lakhs — 50 lakhs in primary schools, 13 lakhs in middle schools and five lakhs in higher secondary schools. The progress of school education between 1956-57 and 1981-82 is shown in Table 27.

According to a survey conducted on education in the State, it was found that 75 per cent of the villages had an access to a primary school within one kilometre distance.

As regards higher education, there is one high/higher secondary school for every 213 sq km area and 20,000 population in Madhya Pradesh as against one for 75 sq km area and 14,750 population for the country as a whole.

Universalisation of elementary education

Madhya Pradesh is one of the backward states so far as enrolment at elementary level is concerned. The enrolment in schools in the age group 6-11 has reached about 65 per cent of the population in that age group and that for age group 11-14, 31 per cent. The corresponding all-India levels are 81.9 per cent and 38.5 per cent. There are about 56 lakh children in the age group 6-14 still out of school. The enrolment level in some states for the age-group 6-11 is as high as 85 to 90 per cent. It is proposed to raise the enrolment to 70 per cent for 6-11 age group and to 35 per cent for 11-14 age group by the end of the Sixth Plan. The corresponding target levels for the country as a whole are 95 per cent and 57 per cent respectively. So far as the enrolment of girls in the State is concerned, it is 43.3 per cent for 6-11 age group and 15.6 per cent for 11-14 age group as against 64.9 per cent and 26.0 per cent respectively for all-India.

Table 27 : Progress of School Education in Madhya Pradesh: 1956-57 and 1981-82

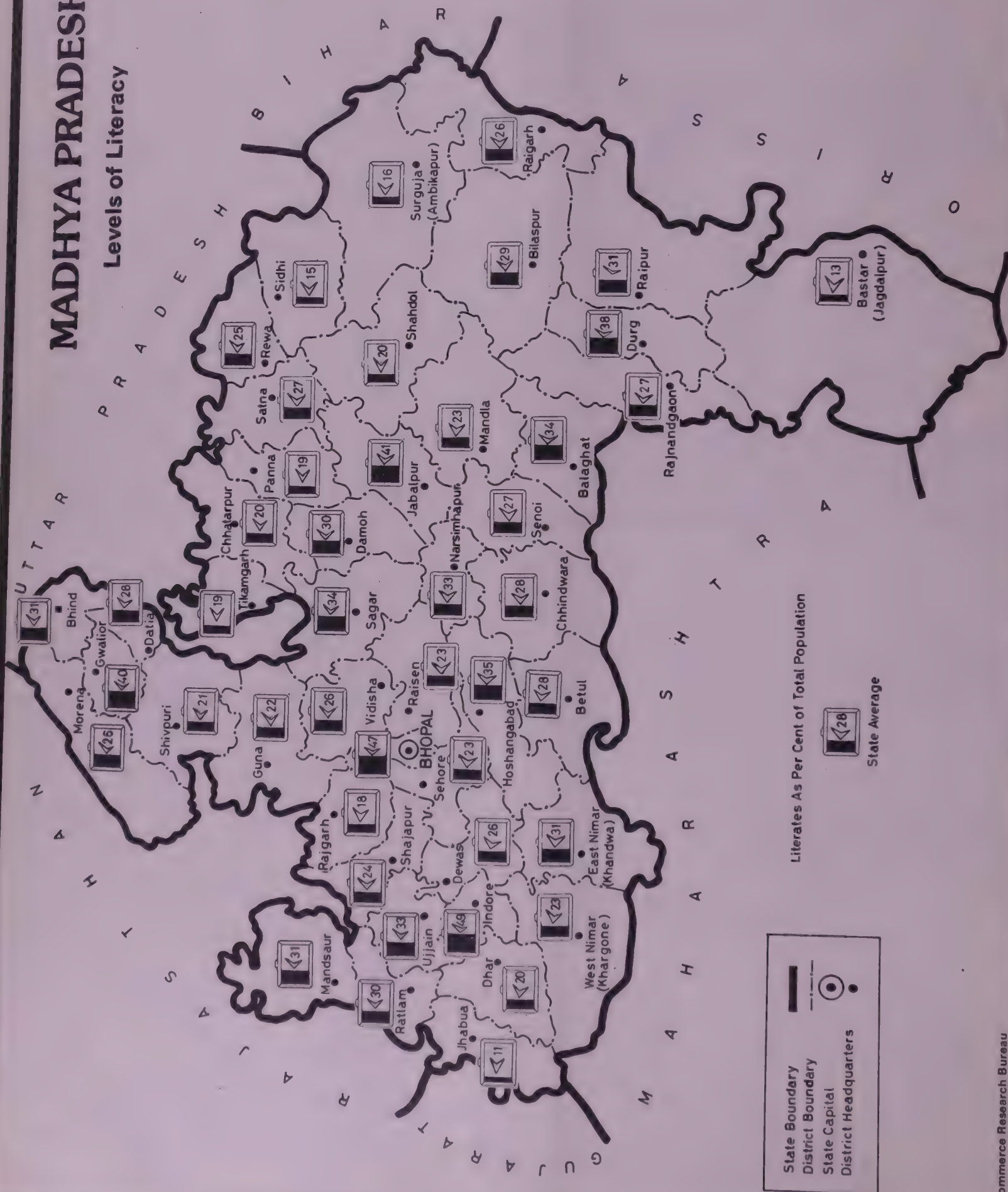
Educational level	1956-57			1981-82		
	Number of Schools	Students (Lakhs)	Teachers (Number)	Number of Schools	Students* (Lakhs)	Teachers* (Number)
I. Pre-primary	70	...	214	...	50.00	970
II. Primary	22,762	15.36	44,499	63,600	13.00	1,14,611
III. Middle	1,604	3.43	15,326	10,630	5.00	55,693
IV. Higher Secondary	414	1.55	9,046	2,295	68.00	33,577
Total	24,850	20.34	69,085	76,525		2,04,851

Notes : *Data relate to 1980-81 **Data relate to 1979-80 (...) = Not available

SOURCES : 1. Communication from Directorate of Information and Publicity, Government of Madhya Pradesh, Bhopal.

2. Sandarbha: 1982 Madhya Pradesh, Labhchand Prakashan, Nai Duniya Complex, Indore.

Levels of Literacy



NOTE: Illustration not to scale

One of the reasons for low enrolment levels is the shortage of funds. The approved Sixth Plan outlay on school education is Rs 74.69 crores. Out of this outlay Rs 10.27 crores were provided in 1980-81 and Rs 11.67 crores in 1981-82. The outlay for 1982-83 is Rs 15.00 crores (including rupees three crores from the Centre for tribal sub-plan). As much as Rs 11.33 crores from this outlay has been assigned to elementary education, being part of the 20-point programme. Again, the bulk of the outlay on elementary education is for continuing schemes while only Rs 1.28 crores have been provided for new schemes.

Primary schools have already been opened in all the villages with a population of 300 or more where facilities of primary education are not available within a radius of one km. Accordingly, 3,400 primary schools were opened during 1980-81, as against 2,900 in 1979-80, out of which 2,000 were in tribal areas. About 45 per cent of the primary schools in the State are still single-teacher schools and they lack in accommodation and other facilities. The State Government therefore decided not to open new primary schools, except in tribal areas, during 1981-82, but to improve the existing schools and provide requisite facilities. According to the statutory norm, there should be one teacher for every 45 students in primary schools. But if there are more than three divisions, there should be at least two teachers even if the number of students was less than 45. Accordingly, in 1980-81, 3,000 additional posts of teachers were created and for 1981-82, 3,815 posts were approved. Besides, primary schools, 630 new middle schools were opened in the State during 1980-81, of which 350 were in tribal areas.

Non-formal education

Efforts are being made by the State Government, within the resources available, to improve the position of enrolment. This is being done through the expansion of non-formal system of education and launching enrolment drive to bring more children, particularly girls and scheduled castes and scheduled tribes students, in the schools where the capacity exists.

The non-formal education system is a Centrally-sponsored scheme. Special attention is being given to this system by the State Government in view of the absence of adequate facilities for imparting formal education. The system is specifically meant for those children who did not go to schools or were drop-outs from schools because of socio-economic reasons. At the end of 1981-82, 3,806 non-formal education centres were being run in Madhya Pradesh. During 1982-83, 1,700 more centres are proposed to be opened, mostly in the tribal sub-plan areas. It is expected that this would cater to about one lakh out-of-school children of age group 6-14.

Higher secondary education

Higher secondary education not being in the core sector suffers from lack of financial resources. The actual requirement of higher secondary schools in Madhya Pradesh is much more than what is possible to provide within the Plan. In 1981-82 there were 2,295 higher secondary schools in the State.

Higher education (college and university)

During the first four Plans there was a significant increase in the facilities for higher education. However, according to the guidelines laid down by the University Grants Commission, the main emphasis during the Fifth Plan and the Sixth Plan, has been on consolidation and qualitative improvement of higher education rather than its expansion. Priority has been

given to backward areas. During the Sixth Five Year Plan an outlay of rupees nine crores has been provided for college education, yet, in the field of higher education, Madhya Pradesh could be considered backward as there are only 95 students taking higher education per lakh of population.

Presently there are nine universities and 254 colleges — 110 government and 144 non-government. Among the universities there is an agricultural university and a university for music and arts. Of the 110 government colleges, 99 are for general education, 8 for Sanskrit and three for music. Among



Gandhi Memorial Medical College Building, Bhopal

the colleges, 13 colleges are in tribal areas and 15 colleges are exclusively for women. Six colleges are only for science and nine colleges for arts. With a view to providing more facilities of higher education to women, post-graduate courses in home science were started in 1980 in Gwalior and Raipur and in 1980-81 at Rewa.

Technical Education

In the sphere of education, technical education holds a distinct place. Technical education provides a nucleus for all developmental activities and the success of all major sectors of the economy depends on the efficiency, availability and quality of manpower. In the past, this sector had not been given the importance it deserved. However, the present Government in Madhya Pradesh and the department of technical education have been making concerted efforts for the improvement of technical education in the State. A new Department of Manpower Planning has been created by the State Government to give a thrust to technical education. The objective of the department is not merely to expand technical education and start new institutions but also to consolidate and improve the existing ones so that there could be a turn-out of really good engineers, supervisors and technicians.

In 1956, there were only three engineering colleges, eight polytechnics, eight higher secondary technical schools and two fine arts institutes in the State. Presently there are nine engineering colleges, 22 polytechnics, 15 higher secondary technical schools, six fine arts institutes, six pre-vocational training centres and one Kalaniketan. The location wise break-up of these institutes is shown in Table 28.

Table 28: Institute for Technical Education in Madhya Pradesh

Type of Institute	Number	Location
Engineering Colleges		
(a) Existing	9	Bhopal, Bilaspur, Gwalior, Indore, Jabalpur, Raipur, Rewa, Ujjain and Vidisha
(b) Proposed	2	Jagdalpur and Sagar
2. Polytechnics		
(a) Existing	22	Ashoknagar, Balaghat, Bhopal, Bhopal (Women's polytechnic), Damoh, Dhamtari, Durg, Gwalior, Harda, Indore, Jabalpur, Jaora, Khandwa, Khirsadoh, Khurai, Nowgong, Raigarh, Sanawad, Seoni, Shahdol (mining polytechnic), Ujjain and Vidisha
(b) Proposed	4	Ambikapur, Jhabua, Pandhurna and Sidhi
3. Higher Secondary Training Centres		
	6	Alirajpur, Betul, Hoshangabad, Jashpurnagar, Panagar and Sehore
5. Government Kalaniketan		
	1	Jabalpur
6. Fine Arts Institutes		
	6	Dhar, Gwalior (2), Indore, Raipur and Ujjain

SOURCE: Communication from Directorate of Technical Education, Government of Madhya Pradesh, Bhopal

Facilities for post-graduate education in engineering are available in three engineering colleges. In addition, facilities of part-time education for industrial workers and persons working in engineering departments and organisations have also been provided in five engineering colleges and three polytechnics.

Investment on the development and growth of technical education in the State has been very low during the various Plans. The investment was grossly inadequate to meet the requirements. As a result, the institutions already started had to be run with depleted instructional and inadequate laboratory facilities.

As regards engineering colleges, the last engineering college was opened at Ujjain as far back as in 1966. The existing engineering colleges are already working to their maximum capacity and there is no further scope for raising the intake capacity. In view of the growing demand, there is an urgent need for opening new colleges with matching financial provision. Two new engineering colleges have already been proposed to be opened one each at Sagar and Jagdalpur. At the present reckoning, the non-recurring cost of an engineering college works out to a minimum of Rs 2.61 crores and the annual

recurring expenditure Rs 15 lakhs. The admission capacity in and the output from engineering colleges is shown in Table 29.

The situation in polytechnics is very much similar to that in engineering colleges. It was in 1965 that the last polytechnic in the state was established. The existing polytechnics have reached the saturation point and there is no scope for addition in the existing intake capacity. Out of 45 districts only 21 districts have polytechnics. Realising the demand and the potential the State Government has decided to open four new polytechnics at Ambikapur, Jhabua, Pandhurna and Sidhi. The non-recurring cost of a polytechnic works out to Rs 1.20 crores. The admission capacity and out-turn from the existing polytechnics are shown in Table 30.

According to a survey conducted in 1979-80 by the Directorate of Technical Education, Bhopal, there is an urgent need for trained technicians in mechanical and electrical engineering disciplines. The expected requirement in the next 10 years in the electrical engineering discipline would be 6,000 and in the mechanical engineering discipline 15,000. The requirement of sub-engineers (diploma holders) by the State Government's Irrigation Department alone for the four-year period 1981-82

Table 29: Admission Capacity in and Output from Engineering Colleges in Madhya Pradesh: 1975-76 to 1980-81

Year	Admission capacity	Output (Number)				
		Civil	Mechanical	Electrical	Others	Total
1975-76	1,160	282	246	169	91	788
1976-77	1,220	336	219	163	83	801
1977-78	1,480	351	275	150	128	904
1978-79	1,510	397	287	129	115	928
1979-80	1,480	439	331	180	119	1,069
1980-81	1,620	422	342	228	153	1,145

SOURCE: Communication from Directorate of Technical Education Government of Madhya Pradesh, Bhopal.

to 1984-85 was placed at about 4,700. Similarly, the number of managers/supervisors (technical degree/diploma holders) required by the Madhya Pradesh Electricity Board worked out to 2,710 at the end of 1985.

Besides, the World Bank programme for irrigation in the State has a huge investment. These projects are covered under time-bound programme. The programme stipulates that the manpower required for the projects should be made available to enable the State to draw funds from the World Bank.

It is estimated that the Irrigation Department of the State Government would be able to employ about 80 per cent of the civil engineering diploma holders coming out from the existing polytechnics from 1982 onwards. Likewise the State Electricity Board would be able to absorb all electrical engineering diploma holders and upcoming industrial units all mechanical engineering diploma holders. And still there would be need for more personnel. It is thus clear that the existing capacity/out-turn of polytechnics in the state is far less than the requirement.

Unless the capacity to train technicians in civil, mechanical and electrical engineering is increased, the state will not be in a position to meet the manpower needs of the various ongoing projects.

The Sixth Plan of Madhya Pradesh has laid emphasis on three aspects of technical education for the five-year period: (i) consolidation of existing institutions, (ii) qualitative improvement, and (iii) expansion of technical education by way of increasing the intake capacity of existing institutions and opening new institutions. If the state has to reach the all-India levels, the Department of Technical Education would need Rs 17.25 crores — rupees seven crores on consolidation, Rs 3.25 crores on qualitative improvement and rupees seven crores on expansion — for the Sixth Plan period. As against this, the actual allocation on technical education for the Sixth Plan period is a meagre Rs 6.15 crores or barely 0.1 per cent of the total Plan outlay of Rs 3,800 crores. There is therefore the need to raise the outlay on technical education. □

Table 30: Admission Capacity in and Out-turn from Polytechnics in Madhya Pradesh: 1975-76 to 1980-81

(Number)

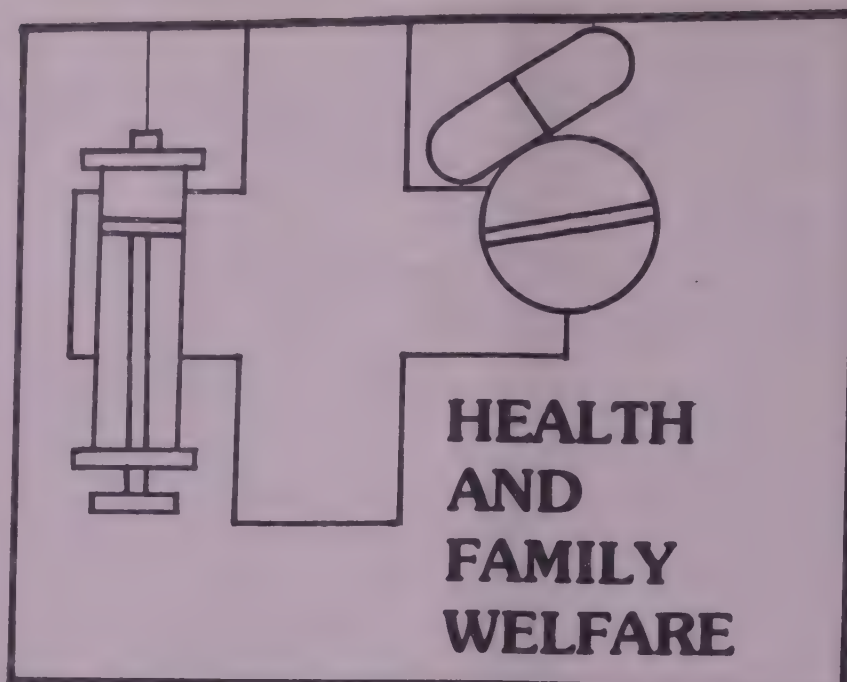
Year	Admission capacity	Out-turn				
		Civil	Mechanical	Electrical	Others	Total
1975-76	2 590	716	214	244	175	1 349
1976-77	2 610	918	170	198	202	1 488
1977-78	3 190	1 123	266	289	178	1 856
1978-79	3 210	903	301	220	199	1 623
1979-80	3 170	1 371	551	395	226	2 543
1980-81	3 570	1 656	536	518	272	2 982

SOURCE: Communication from the Directorate of Technical Education, Government of Madhya Pradesh, Bhopal



Interior view of the Industrial Training Institute, Bhopal

IT is generally observed that the best of the doctors and hospital facilities and a disproportionately large share of the health services are in the urban areas. On the other hand, the situation in villages happens to be abominable. Although the government medical facilities are practically free, the quality of services is so poor that those who can afford generally prefer to avail themselves of the services of the private practitioners. Again there is a dearth of doctors in the rural areas.



During the Sixth Five Year Plan of Madhya Pradesh it is proposed to establish 47 additional primary health centres, 3,000 sub-health centres, 187 subsidiary health centres, upgrade 8 primary health centres into 30-bedded rural hospitals, increase beds in hospitals by 3,000, provide X-ray, ambulances and equipments etc. When these targets are fulfilled, there would be a male and a female health worker for every 5,000 population in Madhya Pradesh. In its future plans the State Government is also considering the construction of buildings for the sub-health centres and buildings for primary health centres/mini primary health centres with staff quarters. The Sixth Plan targets and the achievements in the first two years (1980-81 and 1981-82) of the Plan in respect of medical facilities are given in Table 32.

norms, equipments and instruments for these hospitals. Also the bed strength of the district and tahsil hospitals is being increased suitably. Keeping in view the requirements of ever-expanding health services, the staff strength was also substantially increased. In 1981 there were 4,737 allopathy doctors, 1,441 doctors in unani and ayurvedic systems of medicine, 2,267 nurses and 1,127 lady health visitors.

Table 31: Medical facilities in Madhya Pradesh

Category	(Number)	
	1956	1981
Beds	10,177	20,819
Primary Health Centres	108	465
Medical colleges	2	6
Dental colleges	—	1
Cancer hospitals	2	4
Leprosy centres/hospitals	—	7
Dispensaries of indigenous system of medicine	687	1,601
Doctors belonging to scheduled castes and Scheduled Tribes	—	167

SOURCE: Communication from Director of Information and Publicity, Government of Madhya Pradesh, Bhopal

Table 32: Sixth Plan targets and achievements in Madhya Pradesh

Category	(Number)	
	Sixth Plan (1980-85) target	Achievement during 1980-81 and 1981-82
1. Additional primary health centres	47	15
2. Sub-health centres	3,000	721
3. Upgradation of primary health centres into 30 bedded rural hospitals	8	4
4. Subsidiary health centres	187	Nil
5. Polyclinics	21	8
6. Mini primary health centres	7	7
7. Venereal diseases clinics	4	4
8. District T B centres	9	10
9. Increase of beds	3,000	692

SOURCE: Communication from Public Health Department, Government of Madhya Pradesh, Bhopal

The situation obtaining in Madhya Pradesh is not very much different. The basic need is for the availability of adequate number of doctors. At the end of 1981-82, there were 4,986 allopathic doctors in Madhya Pradesh. In other words, the doctor-population ratio was 1:10,500. Although this ratio appears to be too high, it should be noted that it was as high as 1:22,000 years back. For all-India this ratio was 1:2,600. Another drawback in the State is the low level of per capita expenditure on health. As per the 1981-82 Budget, the per capita expenditure worked out to only Rs 23 as against Rs 26 for all-India.

Despite this the State Government has made laudable progress in providing improved medical facilities to the people. The position of medical facilities in 1956 and 1981 is shown in Table 31.

The State Government is making efforts to improve the services under the Minimum Needs Programme (MNP) and under the Medical Relief Scheme. Under the MNP, additional primary health centres, sub-health centres, subsidiary health centres and upgradation of primary health centres into 30-bedded rural hospitals are being established to provide better health services in the rural areas. Under the Medical Relief Scheme, the district hospitals are being provided with staff required as per the

As a result of the improvement in health services, the longevity of life in Madhya Pradesh has gone up to 53 years in 1981. The average longevity in 1921 was only 21 years. The child mortality rate which was 175 per thousand in 1941 has also been brought down to 129 per thousand in 1981. The death rate also declined from 39 per thousand in 1951 to 17 per thousand in 1981. However, even with this improvement, these rates lag behind the all-India levels.

Madhya Pradesh has a large share of tribals in its population. In fact, one out of every four persons is a tribal. Besides, the state has more than 50 lakh Harijans. These people are the most depressed sections of the society. In this context, health service in rural areas has an important role to play. With a view to providing health services in far-flung villages, training has been imparted to 12,824 community health workers who are not Government employees. Similarly, a multi-purpose worker has been posted at each sub-centre of the primary health centres for the primary treatment of small-pox, malaria, tuberculosis, etc. These workers educate the rural folk on family welfare, mother and child welfare, vaccination, nutrition and environmental hygiene. Table 33 gives the spread of medical facilities in rural areas.

As regards medical facilities in tribal areas, the State Government has started a special tribal sub-plan. Under the Plan the health facilities in these areas have been expanded substantially because of which a tribal is not required to traverse a distance of more than five to six kilometres for treatment. Health facilities have now become available at 1,200 gram panchayat headquarters. The doctor in these areas meets the patients once a week and provides medicare. They also make their services available on Hat (market) days. Various insti-

Table 33: Spread of Medical Facilities in Rural Areas of Madhya Pradesh (As on April 1, 1982)	
Category	Institutions functioning (Number)
Sub-centres	5 576
Primary health centres	465
Additional primary health centres	200
Mini primary health centres	563
Upgraded primary health centres	26
Health guide scheme (primary health centres)	314
SOURCE: Communication from Public Health Department, Government of Madhya Pradesh, Bhopal	

tutions functioning in the tribal areas are shown in Table 34.

Family welfare

In the field of family planning the State Government is committed to making the programme a truly voluntary one. The family planning programme, although in existence since 1956 in the State, was started vigorously only from 1967-68 in a planned manner.

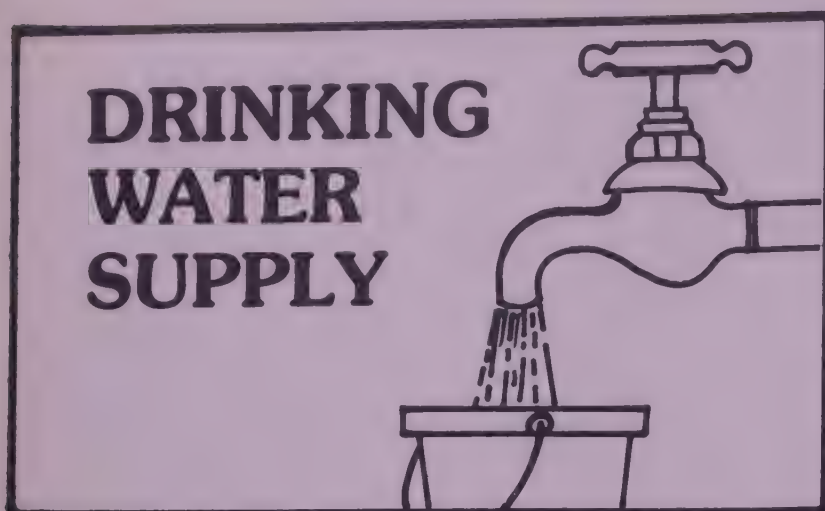
The birth rate in the state is proposed to be lowered to 33 per thousand by the end of the Sixth Plan. Although the crude birth rate in the state came down from 45 per thousand in 1951 to 38 per thousand in 1979, it was the second highest in the country after Uttar Pradesh (40 per thousand). The corresponding birth rate for the country as a whole was 33. Education and motivation drives have been launched to promote the pro-

gramme and to ensure people's involvement. The sterilisation programme had started in the state in 1956. But it got real momentum in 1975-76. At the end of August 1981, 27.5 lakh sterilisations have been done in the state. At the end of March 1981, of the 92.87 lakh eligible couples in the state, 19.78 lakh couples were protected by various methods of family planning.



Cancer Hospital (Jawaharlal Nehru Memorial Medical College), D.K. Hospital, Raipur

Table 34: Medical facilities available in tribal areas of Madhya Pradesh (As on April 1, 1982)	
Category	(Number)
Primary health centres	176
Additional primary health centres	190
Mini primary health centres	315
Sub-health centres	2 250
Civil dispensaries	66
Civil hospitals	33
Beds in hospitals	3 178
SOURCE: Communication from Public Health Department, Government of Madhya Pradesh, Bhopal	



THE provision of safe drinking water to every person is the basic requirement of any cultured society. But unfortunately, even this basic necessity is not made available to all in Madhya Pradesh. In the state the work of executing drinking water supply schemes in rural and urban areas is entrusted to the Public Health Engineering Department. In the rural sector greater emphasis is being laid on schemes in the problem villages included under the Minimum Needs Programme. On November 10, 1980, the International Water Decade was inaugurated under the auspices of the United Nations. Under this programme it is targeted to provide satisfactory drinking water facilities to all towns and villages by 1990. The Government of Madhya Pradesh has provided for an outlay of Rs 25 crores for 1982-83 and of Rs 146.50 crores for the entire Sixth Plan (1980-85) on water supply schemes.

Urban water supply

The overall status of drinking water supply in the towns of Madhya Pradesh is not very satisfactory. The schemes in various towns have their own problems. Not only the cost of these schemes tends to be high but their maintenance also poses problems. In 1956 there were 189 towns in Madhya Pradesh out of which 43 towns had drinking water supply schemes. In 1981 the number of towns was 303 of which 179 towns had drinking water supply. By the end of March 1982, organised water supply was made available to 225 towns. However in many of these towns the water supply system needs augmentation because of the rapid growth of these

towns in terms of population and industrialisation. The expenditure as also the urban water supply schemes taken up during the various Plan periods is given in Table 35.

Although about 100 towns (including augmentation schemes) are proposed to be covered during the Sixth Plan, still a number of towns would be left without the arrangement of organised water supply. Because of the increase in population, the existing water supply schemes in a number of towns may find it difficult to meet the requirements by 1985.

Rural water supply

Owing to the hilly and mountainous terrain in Madhya Pradesh, there is the real difficulty in providing drinking water to villages situated in these areas.

Out of the total 70,883 villages in Madhya Pradesh, 44,792 villages or 63.2 per cent have been identified as problem villages so far as the drinking water supply is concerned. Out of these problem villages, 33,234 villages were covered at the end of May 1982. During 1982-83, a total of about 8,000 villages are to be covered. The problem villages are defined as:

- Those not having assured source of drinking water within a reasonable distance (1.6 km) or within a depth of 15 metres.
- Those which suffer from excess of salinity, iron or fluoride or other toxic elements hazardous to health.
- Those where source of water is liable to the risk of cholera or guinea-worm infestation.

The district-wise number of problem villages and the villages covered under the programme are detailed in Table 36.

Apart from the 44,792 identified problem villages, there are about 5,000 villages in the state which are classified as difficult villages, where the problem is of the same magnitude as that of declared problem villages. The State Government has decided to cover all the problem villages by the end of the Sixth Plan. The revised 20-point programme has also given special importance to this problem and the work of providing safe and potable water to the remaining problem villages has been taken up on a priority basis.

Coming to the progress of the programme during the various Plans, during the First Five Year Plan an amount of Rs 23.77 lakhs was spent on rural drinking water supply and 52 villages were covered. In the Second Plan, Rs 66.35 lakhs were spent and 293 villages were covered. It was during the Third Plan that the problem of drinking water supply was

Table 35 : Urban water supply during the Plans in Madhya Pradesh

Plan period	Water supply schemes (Number)	Expenditure (Rs lakhs)	Cumulative total of water supply schemes (Number)
Till 1951			
First Plan (1951-56)	34	...	34
Second Plan (1956-61)	7	57.99	41
Third Plan (1961-66)	10	349.56	51
Three Annual Plans (1966-69)	18	293.79	69
Fourth Plan (1969-74)	3	319.02	72
Fifth Plan (1974-78)	32	1,069.93	104
1978-79 and 1979-80	42	4,132.17	146
	29	1,563.64	175
Total		7,786.10	

() = Not available

SOURCE: Sandarbha: 1982, Madhya Pradesh, Lalchand Prakashan, Nai Duniya Complex, Indore

Table 36: District-wise Problem Villages in Madhya Pradesh: up to May 1982

District	Number of problem villages	Number of problem villages covered
Balaghat	1,161	820
Bastar*	2,257	2,544
Betul	1,101	898
Bhind	391	73
Bhopal	193	166
Bilaspur	3,078	2,780
Chhatarpur	522	247
Chhindwara	1,781	1,249
Damoh	837	515
Datia	311	95
Dewas	401	196
Dhar	1,202	809
Durg	1,582	1,396
East Nimar (Khandwa)	397	334
Guna	1,247	682
Gwalior	405	182
Hoshangabad	642	508
Indore	384	321
Jabalpur	1,658	944
Jhabua*	752	953
Mandla	1,307	583
Mandsaur	689	270
Morena	809	254
Narsimhapur*	524	526
Panna	472	267
Raigarh	1,643	1,330
Raipur	1,870	1,451
Raisen	592	314
Rajgarh*	886	948
Rajnandgaon	1,191	917
Ratlam	589	281
Rewa	1,114	919
Sagar	932	625
Satna	1,353	1,126
Sehore	739	483
Seoni	1,305	846
Shahdol	1,705	1,407
Shajapur	463	223
Shivpuri	352	247
Sidhi	1,120	914
Surguja	2,142	1,600
Tikamgarh	421	215
Ujjain	475	323
Vidisha	703	429
West Nimar (Khargone)	1,094	1,028
Total	44,792	33,234(a)

Notes: (a) The actual total comes to 33,238 but the total given as per source is 33,234. The difference of 4 is not explained.
 * The number of problem villages covered is more than the actual number of problem villages as per the source.

given special attention in that an amount of Rs 145.67 lakhs was spent and 326 villages were covered. The Plan-wise progress is given in Table 37.

In the first two and a quarter years of the Sixth Plan as many as 13,386 problem villages were covered. During 1982-83, it is proposed to provide drinking water to about eight thousand problem villages. During 1981-82, the State Government spent Rs 14.98 crores on rural drinking water supply schemes in problem villages while an assistance of Rs 10.33 crores was received from the Centre. During 1982-83, the State Government has allocated Rs 9.70 crores to this programme and about rupees eight crores are expected to be received from the Centre.

It is the endeavour of the State Government to solve the problem of drinking water in far-flung areas. However, the major hurdle is that of resources, for which the State Government is trying to get assistance from foreign countries. For piped water supply in rural areas, the State Government has prepared a Rs 60 crore scheme to cover 1,625 villages. The KfW bank of West Germany has agreed to give half the cost of the project in the form of assistance. The balance cost of Rs 30 crores would be borne by the State Government. The project would be completed in three stages.

The Public Health Engineering Department of the State Government has also taken up, in addition to problem villages, piped water supply schemes. However, because of constraint on resources, the programme is at present limited to villages with population above 2,000. On completion, these schemes would be handed over to the concerned gram panchayats. So far, 700 such schemes have been completed.

Out of 27,836 tribal villages in the State, 17,980 have been identified as problem villages. The total number of villages covered in the tribal sub-plan area is 11,331. The tribal population is scattered in hamlets. The State Government has given direction that in such tribal villages, hamlets should be treated as units for providing separate water supply. There are about 20,000 such hamlets in the sub-plan area.

The State Government has also been providing facility of drinking water on priority basis to such villages which have higher concentration of scheduled caste population. There are 2,164 such villages in the State out of which 1,171 have been identified as problem villages. The field staff has been directed that in villages where more than one tubewell is to be installed, at least one tubewell should be in Harijan bastis and that the rest of the tubewells provided should be preferably in Harijan bastis or nearer to them as far as possible.

Table 37: Plan-wise Progress of Rural Drinking Water Supply in Madhya Pradesh

Plan period	Outlay (Rs lakhs)	Expenditure (Rs lakhs)	Villages covered (Number)	Population covered (In hundreds)
First Plan (1951-56)	18.98	23.77	52	162
Second Plan (1956-61)	86.95	66.35	293	1,622
Third Plan (1961-66)	186.28	145.67	326	2,090
Three Annual Plans (1966-69)	89.00	115.08	436	2,900
Fourth Plan (1969-74)	1,469.31	1,271.00	5,277	10,188
Fifth Plan (1974-78)	1,799.69	1,776.06	8,004	29,325
1978-79 and 1979-80	3,568.52	3,609.54	5,017	24,712
Total	7,218.73	7,007.47	19,405	70,999

SOURCE: Sandarbha: 1982 Madhya Pradesh, Lalbhchand Prakashan, Nai Duniya Complex, Indore

AGRICULTURE being the mainstay of the majority of the population in Madhya Pradesh, availability of marketing facilities for agricultural produce forms an important part of infrastructure.

Regulated markets (mandis) play an important role in getting fair prices to farmers for their produce. The main objective of the regulated agricultural produce market is to stop the unfair trade practices in marketing. In a regulated agricultural produce market the produce is sold on an auction basis in which all traders take part. This gives an element of competition and the farmer gets a fair price for his produce. Wherever such markets have been established, the traders have been banned to make purchases outside the regulated market area.

At the time of formation of Madhya Pradesh in 1956 there were in all 87 agricultural produce markets (mandis) of which 83 markets were in the Madhya Bharat region. However, these markets were governed by different rules and legislations. With a view to bringing about a uniformity in legislation, the Madhya Pradesh Regulated Mandis Act was brought into force in 1960 which was subsequently amended.

At the end of March 1982, there were 256 principal regulated agricultural produce markets and 92 sub-market yards in Madhya Pradesh. The district-wise break-up and the average area per principal market are shown in Table 38.

It will be seen from the Table 38 that the average area per principal regulated market in Madhya Pradesh works out to 1,732 sq km which is quite high. Even within the State there are wide disparities among the districts in this respect. The area per regulated market in Sidhi was the highest at 10,526 sq km reflecting the availability of poor facilities while it was the lowest in Rajgarh at only 615 sq km. Thus, there is an urgent need for opening more markets as also for their equitable distribution.

MARKETING OF AGRICULTURAL PRODUCE



Regulated Market Bullock cart. A mode of Transport



Regulated Market Rani Laxmi Bai Krishi Mandi, Bhopal

kets and Category IV (with income up to rupees one lakh) — 144 markets.

Looking at the need, the existing number of 256 markets is not adequate. In far-flung areas, due to lack of transport facilities and meagre quantity of marketable surplus, the small and marginal farmers prefer to sell their produce in the village itself or in the nearest weekly markets. These markets are devoid of bare facilities and amenities like platforms for sale and their produce, shelter for parking their carts and bullocks and drinking water. The trade practices are heavily weighted against the producers. Practically there is no proper control and supervision over these markets and as such the producers are cheated in weighing and payment. Even the support price offered by the Government does not always help them.

In the past these markets did not receive adequate attention due to various reasons. Reliable data was also not available on these markets. In the "Joint Planning Meeting on Rural Markets Centre Development in Asia" held at Bangkok in December 1978, it was suggested that in India action may be taken for conducting a "Rural Market Survey". The Food and Agriculture Organisation provided \$ 3,000 as seed money for conducting the survey. Accordingly, in Madhya Pradesh, Vidisha was the first district taken up for rural market survey and 49 weekly markets were surveyed during the period May-June 1979. Since then 30 districts have been covered under the programme and 2,039 weekly markets have been surveyed to find out suitable weekly markets for regulation.

By the end of the Sixth Plan it is proposed to increase the number of principal markets to 350 and that of sub-market yards to 500 so that the producer-sellers can get facilities to sell their produce within a radius of 10 km from their villages.

The regulated markets in the State are classified into four categories on the basis of their incomes. The distribution of the number of existing regulated markets according to these categories is as follows:

- Category I (with income of more than Rs 7 lakhs) — 6 markets,
- Category II (with income of more than rupees three lakhs and up to rupees seven lakhs) — 33 markets,
- Category III (with income of more than rupees one lakh and up to rupees three lakhs) — 73 mar-

Table 38: District-wise Principal Agricultural Produce Markets in Madhya Pradesh: March-end 1982

District	Area (sq. km.)	Number of principal markets	Average area per principal market (sq. km.)
(1)	(2)	(3)	(4)
Balaghat	9,229	7	1,318
Bastar	39,114	8	4,889
Betul	10,043	2	5,022
Bhind	4,459	6	743
Bhopal	2,772	2	1,386
Bilaspur	19,897	12	1,658
Chhatarpur	8,687	5	1,737
Chhindwara	11,815	2	5,908
Damoh	7,306	2	3,653
Datia	2,038	2	1,019
Dewas	7,020	6	1,170
Dhar	8,153	6	1,359
Durg	8,537	3	2,846
East Nimar (Khandwa)	10,779	3	3,593
Guna	11,065	11	1,006
Gwalior	5,214	3	1,738
Hoshangabad	10,037	7	1,434
Indore	3,898	4	975
Jabalpur	10,160	4	2,540
Jhabua	6,782	4	1,696
Mandla	13,269	6	2,212
Mandsaur	9,791	8	1,224
Morena	11,594	9	1,288
Narsimhapur	5,133	4	1,283
Panna	7,135	3	2,378
Raigarh	12,924	6	2,154
Raipur	21,258	15	1,417
Raisen	8,466	5	1,693
Rajgarh	6,154	10	615
Rajnandgaon	11,127	5	2,225
Ratlam	4,861	5	972
Rewa	6,314	4	1,579
Sagar	10,252	5	2,050
Satna	7,502	4	1,876
Sehore	6,578	5	1,316
Seoni	8,758	5	1,752
Shahdol	14,028	7	2,004
Shajapur	6,196	9	688
Shivpuri	10,278	8	1,285
Sidhi	10,526	1	10,526
Surguja	22,337	5	4,467
Tikamjarh	5,048	3	1,683
Ujjain	6,091	7	870
Vidisha	7,371	7	1,053
Madhya Pradesh	4,43,446	256	1,732

SOURCE: 1. Director of Census Operations, Madhya Pradesh, Census of India 1981, Series 11, Madhya Pradesh, Paper 1 of 1981 — Supplement, Provisional Population Totals.

2. Communication from Director of Mandis, Government of Madhya Pradesh, Bhopal

3. Communication from Directorate of Economics and Statistics, Government of Madhya Pradesh, Bhopal

MADHYA PRADESH

Bank Offices

(June-end 1981)



State Boundary —
 District Boundary - - -
 State Capital ●
 District Headquarters ●
 Bank Offices in Madhya Pradesh 2,177
 Bank Offices per lakh of population (4.2)

INSTITUTIONAL FINANCE



BANK credit is one of the important instruments in promoting growth, particularly in rural areas. In tune with its overall backwardness, Madhya Pradesh has been backward in the spread of banking facilities also. Initially, after the formation of the State, there were only five banks with 171 branches operating in the State and their activities were mainly confined to cities and towns. In 1960, the number of branches went up to 186 and further to 290 in 1967.

Commercial banks

However, after the nationalisation of 14 major banks in 1969, there has been a significant spurt in branch expansion of banks and deployment of credit in rural areas. The number of bank branches in Madhya Pradesh went up from 343 in June 1969 to 2,431 by the end of March 1982. As a result, during the same period the average population served per bank office declined from 1.16 lakhs to 22,000. However, the all-India average for this was 18,000. The number of bank offices per lakh of population in the State worked out to 4.6 as against the all-India average of 5.6. As regards bank deposits and credit, the figures were Rs 1,172 crores and Rs 653 crores respectively at the end of December 1980. The credit-deposit ratio worked out to about 56 per cent. The credit-deposit ratio was the highest in the rural areas — 66 per cent, followed by 55 per cent in urban/metropolitan areas and 52 per cent in semi-urban areas. The per capita deposits in Madhya Pradesh worked out to Rs 224 and the per capita credit to Rs 125. The all-India figures were quite high at Rs 538 and Rs 360 respectively. Of the total advances in the State at the end of December 1979, Rs 232.56 crores or as much as 45.7 per cent were given to priority sectors like agriculture, small-scale industry and small

borrowers. In this respect the state ranked much higher among the States in the country. The percentage of priority sector advances to total advances in the country was 28.1. Of the total priority sector advances, 49 per cent were for agriculture, 24 per cent for small-scale industries, 12 per cent for transport and 11 per cent for retail trade and small business.

Lead bank scheme

There are nine nationalised banks in the state which work as Lead Banks. The Lead Bank scheme was introduced to remove the regional imbalances. Under the scheme the 45 districts in the state have been allocated among these banks

(Table 39) and the respective banks would hold the lead responsibility in bringing about the development of the districts under their control. The banks prepare credit plans for their districts and ensure adequate flow of credit to agriculture, industries etc.

Regional Rural Banks

Regional rural banks are established in areas which have development potential but are not adequately served by institutional credit agencies. These banks are expected to assist particularly the weaker sections of the village community. At the end of June 1981, there were 12 Regional rural banks in Madhya Pradesh with 305

Table 39: Allocation of districts among banks in Madhya Pradesh under Lead Bank Scheme

Lead Bank	Number of districts allocated	Name of districts
1. State Bank of India	7	Bastar, Bilaspur, Chhatarpur, Bamoh, Panna, Raigarh and Tikamgarh
2. State Bank of Indore	3	Guna, Shivpuri and Vidisha
3. Bank of India	10	Bhopal, Dewas, Dhar, East Nimar (Khandwa), Indore, Rajgarh, Sehore, Shajapur, Ujjain and West Nimar (Khargone)
4. Central Bank of India	17	Balaghat, Betul, Bhind, Chhindwar Gwalior, Hoshangabad, Jabalpur, Mandla, Mandsaur, Morena, Narsimhapur, Raisen, Ratlam, Sagar, Seoni, Shahdol and Surguja
5. Dena Bank	3	Durg, Raipur and Rajnandgaon
6. Union Bank of India	2	Rewa and Sidhi
7. Punjab National Bank	1	Datia
8. Bank of Baroda	1	Jhabua
9. Allahabad Bank	1	Satna
Total	45	

SOURCE: Reserve Bank of India, Statistical Tables Relating to Banks in India 1979.

Table 40: Assistance by all-India financial institutions to Madhya Pradesh

	Madhya Pradesh		India	
	1980-81	Cumulative since inception up to March 1981	1980-81	Cumulative since inception up to March 1981
1. Sanctions				
(a) Total (Rs crores)	62.28 (2.9)	296.42 (3.0)	2,142.14	10,002.79
(b) Per capita (Rs)	12	57	31	147
2. Disbursals				
(a) Total (Rs crores)	43.38 (3.0)	192.33 (2.8)	1,463.44	6,914.10
(b) Per capita (Rs)	8	37	21	101

Note: Figures in brackets indicate percentage to corresponding figures for all-India

SOURCE:

1. Industrial Development Bank of India, *Operational Statistics, 1980-81, 1982*
2. Reserve Bank of India, *Report on Currency and Finance, 1980-81, Vol. II, 1982*

Table 41 : Cooperative Banks in Madhya Pradesh : June-end 1979

Bank	Number of banks	Number of offices	Membership (Number)	Deposits (Rs crores)	Loans (Rs crores)	
					Outstanding	Overdue
I. State Cooperative Banks	1	15	210	51.81	68.34	6.05
II. Central Cooperative Banks	44	709	22,116	89.24	135.23	55.34
III. Central Land Development Banks	1	2	46	0.08	90.25	4.87
IV. Primary Land Development Banks	45	302	2,29,187	1.15	87.36	12.69
V. Urban Cooperative Banks	27	...	98,000	19.49	7.30	1.69

(...) = Not available.

SOURCE: Reserve Bank of India, *Statistical Statements Relating to the Cooperative Movement in India, Part I, Credit Societies, 1978-79*, September 1981.

branches which covered 21 districts. By the end of December 1980, these banks had mobilised deposits amounting to Rs 8.25 crores and extended advances of Rs 10.51 crores. There is, of course, need for increasing the spread of these banks so that all the districts could be covered.

All-India financial institutions

Besides, commercial banks, all-India financial institutions like Industrial Development Bank of India (IDBI), Industrial Finance Corporation of India (IFCI), Industrial Credit and Investment Corporation of India (ICICI), Industrial Reconstruction Corporation of India (IRCI), Life Insurance Corporation (LIC) of India and General Insurance Corporation of India (GICI) provide financial assistance to various projects, mainly industrial, in different States. So far as Madhya Pradesh is concerned, it appears to have been somewhat neglected by these institutions in extending financial assistance. It is often found that the industrialised states continue to receive higher shares in financial assistance while the comparatively backward states receive less. The assistance to Maharashtra by these institutions has been the maximum. During 1980-81, of the total financial assistance of Rs 2,142 crores sanctioned by these institutions in the country, Madhya Pradesh's share was only Rs 62 crores or 2.9 per cent. Again in respect of disbursements, the state received Rs 43 crores or 3.0 per cent of the total disbursements of Rs 1,463 crores. The position of Madhya Pradesh in India in this respect is shown in Table 40.

It will thus be seen from Table 40 that Madhya Pradesh's share in all-India sanctions and disbursements by financial institutions at the end of 1980-81 was also around three per cent. If we look at the cumulative per capita figures for Madhya Pradesh they were only Rs 57 for sanctions and Rs 37 for disbursements as against the

corresponding all-India figures of Rs 147 and Rs 101 respectively. In both the categories, the State's position was one of the lowest among the States.

Cooperative banks.

Cooperatives play an important role in providing credit especially to agricultural and allied activities in rural areas. At the end of June 1979 there were one State Cooperative Bank, one Central Land Development Bank, 44 Central Cooperative Banks, 45 Primary Land Development Banks and 27 Urban Cooperative Banks. The position of various cooperative banks in Madhya Pradesh as at the end of June 1979 is shown in Table 41.

Cooperative credit societies

At the end of June 1979 there were 5,601 primary agricultural credit societies and 232 non-agricultural credit societies in Madhya Pradesh. The basic data on these societies for 1955-56 and 1978-79 are given in Table 42.

With vast natural and mineral resources, Madhya Pradesh has great potential for financial investment. What the state lacks is capital investment. If more flexible, imaginative and progressive bank finance policy is evolved and more funds are thus made available, many an industrial and infrastructural projects, which otherwise could not be taken up or could not be speeded up, could be completed in the interest of the overall development of the State, and in turn of the country.



Shri Arjun Singh Chief Minister inaugurating a branch of the State Bank of India in Vallabh Bhavan, Bhopal

Table 42 : Cooperative credit societies in Madhya Pradesh : 1955-56 and 1978-79

Type	1955-56	1978-79
I. Agricultural Credit Societies		
(i) Number of societies	16,352	5,601
(ii) Membership ('000)	416	3,020
(iii) Working capital (Rs crores)	5.50	221.04
(iv) Paid-up capital (Rs crores)	0.64	34.74
(v) Reserves (Rs crores)	0.81	16.02
II. Non-Agricultural Credit Societies		
(i) Number of societies	205*	232
(ii) Membership ('000)	53*	105
(iii) Working capital (Rs crores)	1.72*	19.78
(iv) Paid-up capital (Rs crores)	0.76*	4.85
(v) Reserves (Rs crores)	0.16*	1.98

* Data relate to 1960-61

SOURCE: Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics, 1980*

INFRASTRUCTURE IN MADHYA PRADESH: A STATISTICAL PROFILE

By COMMERCE RESEARCH BUREAU

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1. GENERAL

Table 1.1 : Madhya Pradesh in India's economy

Character	Reference year	Unit	Madhya Pradesh	All-India
I. General				
Area	1981	Lakh sq km	4.4	32.9
Population	1981	Lakhs	521	6,838
Decadal growth rate of population	1971-81	Per cent	25.2	24.8
Density of population	1981	Persons per sq km	118	220 (a)
Sex ratio	1981	Females per thousand males	941	935
Urban population	1981	Per cent	20	24
Scheduled castes	1971	Per cent	13.8	15.1
Scheduled tribes	1971	Per cent	23.5	7.5
II. Occupational classification				
Percentage of work force to total population	1981	Per cent	42.8	37.6
Percentage to total work force				
(A) Main workers:				
(i) Cultivators	1981	Per cent	46.9	37.0
(ii) Agricultural labourers	1981	Per cent	21.8	22.4
(iii) Household industry	1981	Per cent	3.4	3.5
(iv) Others	1981	Per cent	17.9	26.1
(B) Marginal workers	1981	Per cent	10.0	11.0
III. Agriculture				
Reporting area	1979-80	Lakh hectares	442.0	3,049.0(b)
Net cultivated area	1979-80	Lakh hectares	184.0	1,426.1(b)
Net cultivated area as per cent of reporting area	1979-80	Per cent	41.6	46.8(b)
Area sown more than once	1979-80	Lakh hectares	24.3	297.0(b)
Area sown more than once as per cent of reporting area	1979-80	Per cent	5.5	9.7(b)
Net irrigated area	1979-80	Lakh hectares	21.4	366.7(b)
Net irrigated area as per cent of net cultivated area	1979-80	Per cent	11.5	25.7(b)
Net sown area per cultivator	1979-80	Hectares	2.3	1.8(b)
Forests	1979-80	Lakh hectares	141.3	671.1(b)
Forest area as per cent of reporting area	1979-80	Per cent	32.0	22.0(b)
Consumption of fertilisers per hectare of gross cropped area	1980-81	Kg	9.2	31.9
IV. Industry				
Working factories (ASI Factory Sector)	1977-78	Number	3,556	84,924
Average daily employment	1977-78	'000 number	297	7,093
Per capita value added by large-scale manufacture	1977-78	Rs	71	130
V. Electricity				
Installed capacity	1981-82	Mw	1,631	32,446
Electricity generated	1981-82	Million kwh	7,027	1,22,866
Requirement	1981-82	Million kwh	7,057	1,29,245
Availability	1981-82	Million kwh	6,448	1,15,274
Total deficit	1981-82	Million kwh	609	13,971
Deficit as per cent of requirement	1981-82	Per cent	8.6	10.8
Per capita power consumption				
(i) Aggregate	1979-80	Kwh	99	134
(ii) Industrial	1980-81	Kwh	64	73
(iii) Agricultural	1979-80	Kwh	7	21
(iv) Domestic	1980-81	Kwh	7	14
Percentage of villages electrified to total villages	As on June 30, 1982	Per cent	44.3	47.7(c)
Pumpsets/tubewells energised	As on June 30, 1982	'000 number	466	4,382 (c)

Table 1.1 : Madhya Pradesh in India's economy (contd.)

Character	Reference year	Unit	Madhya Pradesh	All-India
VI. Roads	As on			
Road length	As on 31-3-1982	'00 km	659	16,041 (d)
Road length per '00 km of area	As on 31-3-1982	Km	15	49 (d)
Road length per lakh of population	As on 31-3-1982	Km	126	251 (d)
VII. Railways				
Railway route length	As on 31-3-1981	Km	5,732	61,240
Railway route length per '000 sq km of area	As on 31-3-1981	Km	13	19
VIII. Communications				
Number of post offices	As on 15-11-1981	Number	10,188	1,39,224 (d)
Population served by a post office	As on 15-11-1981	Number	5,117	4,912 (d)
Area served by a post office	As on 15-11-1981	Sq km	43	24 (d)
Number of letter boxes	As on 31-3-1981	Number	39,624	4,26,553
Letter boxes per lakh of population	As on 31-3-1981	Number	76.1	66.8
Telephone connections per lakh of population	As on 31-3-1980	Number	168	402
IX. Education				
Literacy	As on 1981	Per cent	27.8	36.0(e)
Schooling: Percentage of students in classes to total boys and girls in respective age groups:				
(i) I to V (6 to 11 years)	As on 1980-81	Per cent	64.4	80.9(f)
(ii) VI to VIII (11 to 14 years)	As on 1980-81	Per cent	30.4	37.0(f)
X. Entertainment				
Number of cinema houses	As on 31-12-1980	Number	461	10,889
Cinema houses per lakh of population	As on 31-12-1980	Number	0.9	1.6
Number of radio licences	As on 31-12-1979	'000 number	934	20,724
Radio licences per thousand of population	As on 31-12-1979	Number	18	32
XI. Health				
Number of hospitals	As on 1-1-1981	Number	268	6,670
Hospitals per thousand sq km of area	As on 1-1-1981	Number	0.6	2.0
Hospital beds	As on 1-1-1981	'000 number	16	467
Hospital beds per lakh of population	As on 1-1-1981	Number	30.7	71.0
XII. Banking				
Number of bank offices	As on 31-3-1982	Number	2,431	38,614
Bank offices per lakh of population	As on 31-3-1982	Number	4.6	5.6
Per capita bank deposits	As on 31-12-1980	Rs	224	538
Per capita bank credit	As on 31-12-1980	Rs	125	360
Credit - deposit ratio	As on 31-12-1980	Per cent	56	67
XIII. State/National Income (At current prices)				
(i) Aggregate	As on 1980-81	Rs crores	6,062	1,04,201
(ii) Per capita	As on 1980-81	Rs	1,177	1,537

Notes: (a) Excluding Jammu & Kashmir
 (b) Data relate to 1977-78
 (c) As on June 30, 1981
 (d) As on March 31, 1981
 (e) Excludes Assam
 (f) Data relate to 1976-77

Table 1.2: Growth of population in Madhya Pradesh : 1901 to 1981

Year	Madhya Pradesh				All-India			
	Population (Lakhs)	Decadal growth rate (per cent)	Density of population (persons per sq. km.)	Sex ratio (Females per '000 males)	Population (Lakhs)	Decadal growth rate (per cent)	Density of population (persons per sq. km.) (a)	Sex ratio (Females per '000 males)
1901	169		38	990	2,384		77	972
1911	194	15.3	44	986	2,521	5.7	82	964
1921	192	-1.4	43	974	2,513	-0.3	81	955
1931	214	11.4	48	973	2,790	11.0	90	950
1941	240	12.3	54	970	3,107	14.2	103	945
1951	261	8.7	59	967	3,611	13.3	117	946
1961	324	24.2	73	953	4,392	21.6	142	941
1971	417	28.7	94	941	5,482	24.8	177	930
1981	521	25.2	118	941	6,838	24.8	221	935

Note: (a) Worked out after excluding figures of area and population for Jammu & Kashmir

SOURCE: Registrar General and Census Commissioner, *Census of India 1981, Series 1, Part 1 of 1981, Provisional Population Totals, March 1981*

Table 1.3: Expenditure during Five Year Plans in Madhya Pradesh

(Rs crores)

Sector	First Plan (1951-52 to 1955-56)	Second Plan (1956-57 to 1960-61)	Third Plan (1961-62 to 1965-66)	Annual Plans (1966-67 to 1968-69)	Fourth Plan (1969-70 to 1973-74)	Fifth Plan (1974-75 to 1977-78)	Sixth Plan (1980-81 to 1984-85) (Outlay)	1982-83 (Outlay)
I Agriculture & Community Development	19.86 (33.7)	41.56 (27.9)	70.79 (24.7)	51.93 (30.9)	122.68 (25.8)	202.3 (19.4)	778.60 (20.5)	150.50 (20.8)
II Irrigation & Power	12.39 (21.1)	56.92 (38.2)	126.07 (44.0)	69.25 (41.3)	207.89 (43.7)	617.6 (59.2)	2,284.80 (60.1)	437.40 (60.3)
III Industry & Mining	2.94 (5.0)	3.89 (2.6)	8.05 (2.8)	5.16 (3.1)	11.73 (2.5)	19.0 (1.8)	68.95 (1.8)	14.65 (2.0)
IV Transport & Communications	4.99 (8.5)	8.89 (6.0)	15.44 (5.4)	13.30 (7.9)	40.51 (8.5)	51.0 (4.9)	162.50 (4.3)	33.00 (4.6)
V Social & other services	18.67 (31.7)	37.66 (25.3)	66.34 (23.1)	28.15 (16.8)	92.69 (19.5)	153.3 (14.7)	506.15 (13.3)	89.45 (12.3)
Total	58.85 (100.0)	148.92 (100.0)	286.69 (100.0)	167.79 (100.0)	475.50 (100.0)	1,043.2 (100.0)	3,800.00 (100.0)	725.00 (100.0)

Note: Figures in brackets indicate percentages to total

SOURCES: 1. Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics*, various issues

2. *Communication from Department of Planning, Economics & Statistics*, Government of Madhya Pradesh, Bhopal

Table 1.4: Net state domestic product at factor cost by industry of origin: 1971-72 to 1980-81
(Rs crores)

Industry	At current prices									
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81(a)
1. Agriculture (including animal husbandry)	1,243.0	1,371.4	1,874.4	2,176.2	1,908.1	1,749.2	2,350.3	2,139.3	1,806.1	2,932.2
2. Forestry and logging	97.6	95.0	116.4	121.8	122.3	136.9	144.7	196.3	247.6	305.7
3. Fishing	2.3	2.4	2.9	3.5	3.7	3.7	4.4	4.5	5.4	6.7
4. Mining and quarrying	52.1	58.5	64.3	88.6	109.7	127.7	129.0	121.6	194.1	236.2
Sub-total (1 to 4)	1,395.0	1,527.3	2,058.0	2,390.1	2,143.8	2,017.5	2,628.4	2,461.7	2,253.2	3,480.8
5. Manufacturing										
5.1 Registered	100.8	137.8	207.9	258.6	238.5	296.5	289.6	304.2	377.1	405.6
5.2 Un-registered	101.7	101.8	126.1	106.2	120.1	169.3	179.7	198.2	205.1	223.8
6. Construction	110.1	130.1	146.7	185.1	203.1	218.8	255.0	267.4	326.9	410.8
7. Electricity, gas and water supply	19.3	22.5	23.1	32.1	39.3	48.6	63.1	70.3	90.6	104.7
Sub-total (5 to 7)	331.9	392.2	503.8	582.0	601.0	733.2	787.4	840.1	999.7	1,144.9
8. Transport and communications										
8.1 Railways	62.3	57.3	52.5	68.7	80.0	110.6	116.6	106.3	115.9	140.1
8.2 Transport by other means and storage	33.3	35.4	41.2	49.8	57.2	61.2	68.9	73.0	79.8	92.7
8.3 Communication	8.5	7.7	10.3	11.8	15.1	18.3	19.9	24.1	29.1	34.5
9. Trade, hotels and restaurants	184.5	208.2	266.1	309.1	281.7	274.5	349.1	338.8	335.7	471.2
Sub-total (8 & 9)	288.6	308.6	370.1	439.4	434.0	464.6	554.5	542.2	560.5	738.5
10. Banking and insurance	31.4	35.0	46.1	52.2	63.8	70.0	80.3	87.0	105.4	120.5
11. Real estate, ownership of dwelling and business services	47.9	52.6	59.1	70.8	78.4	85.1	89.2	93.2	100.3	108.5
Sub-total (10 & 11)	79.3	87.6	105.2	123.0	142.2	155.1	169.5	180.2	205.7	229.0
12. Public administration	50.0	58.6	71.5	78.5	84.3	90.0	103.9	115.4	125.3	146.9
13. Other services	103.9	114.7	138.1	175.8	191.8	214.0	236.8	257.4	275.7	321.4
Sub-total (12 & 13)	153.9	173.3	209.6	254.3	276.1	304.0	340.7	372.8	401.0	468.3
14. Net State Domestic Product (1 to 13)	2,248.7	2,489.0	3,246.7	3,788.8	3,597.1	3,674.4	4,480.5	4,397.0	4,420.1	6,061.5
Per Capita Income (Rs)	533.8	577.8	737.0	841.0	780.8	780.0	930.0	892.5	877.4	1,176.6

Note: (a) Quick estimates

SOURCE: Communication from Directorate of Economics and Statistics, Government of Madhya Pradesh Bhopal.

Table 1.4: Net state domestic product at factor cost by industry of origin: 1971-72 to 1980-81 (Contd.)

(Rs crores)

At constant (1970-71) prices										
1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81(a)	
1,183.4	1,070.4	1,065.5	1,074.3	1,216.3	980.0	1,263.1	1,154.0	759.6	1,199.2	1. Agriculture (including animal husbandry)
93.9	80.7	90.3	84.0	76.6	82.2	68.8	80.4	93.7	99.1	2. Forestry and logging
2.0	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.9	3.1	3. Fishing
51.4	56.0	58.3	67.6	74.1	73.4	76.4	71.1	78.7	86.0	4. Mining and quarrying
1,330.7	1,209.2	1,216.3	1,228.2	1,369.3	1,138.0	1,410.8	1,308.1	934.9	1,387.4	Sub-total (1 to 4)
94.2	121.5	159.9	155.4	137.0	167.0	160.0	161.5	169.0	163.8	5. Manufacturing
94.8	88.2	97.6	64.8	71.6	100.0	100.7	107.6	96.1	92.9	5.1 Registered
103.2	112.9	108.8	110.6	109.3	113.1	127.3	121.4	129.9	143.9	5.2 Un-registered
17.9	20.4	22.4	24.4	29.6	32.5	35.5	37.4	38.2	40.0	6. Construction
										7. Electricity, gas and water supply
310.1	343.0	388.7	355.2	347.5	412.6	423.5	427.9	433.2	440.7	Sub-total (5 to 7)
58.0	57.5	53.4	61.5	68.7	71.3	76.0	78.2	72.8	74.5	8. Transport and communications
32.0	31.3	33.2	34.0	37.0	35.8	40.1	41.1	39.6	45.0	8.1 Railways
8.4	8.8	9.3	10.0	10.6	11.6	11.8	12.6	13.0	13.0	8.2 Transport by other means and storage
175.7	163.5	164.8	167.1	183.4	160.3	185.1	180.6	142.7	190.1	8.3 Communication
274.1	261.1	260.7	272.6	299.7	279.0	313.0	312.5	268.1	322.6	9. Trade, hotels and restaurants
28.8	30.0	30.7	28.4	33.4	42.0	48.4	57.7	65.6	66.4	Sub-total (8 & 9)
44.6	45.1	45.7	46.3	46.9	47.4	48.1	48.7	49.3	50.0	10. Banking and insurance
73.4	75.4	76.4	74.7	80.3	89.4	96.5	106.4	114.9	116.4	11. Real estate, ownership of dwelling and business services
48.5	51.9	56.3	60.4	63.4	62.9	63.9	73.5	80.0	98.0	Sub-total (10 & 11)
99.7	109.2	113.6	124.8	128.0	132.9	141.3	144.8	150.9	163.4	12. Public administration
148.2	161.1	169.9	185.2	191.4	195.8	205.2	218.3	230.9	261.4	13. Other services
2,136.5	2,049.5	2,112.0	2,115.9	2,288.2	2,114.8	2,449.0	2,373.2	1,982.0	2,528.4	Sub-total (12 & 13)
										14. Net State Domestic Product (1 to 13)
507.2	475.7	479.4	469.7	496.7	448.9	508.4	481.7	393.4	490.8	Per Capita Income (Rs)

Table 1.5 : District-wise population statistics of Madhya Pradesh : 1981

District	Area (sq. km)	Population ('000 number)	Decadal growth rate (1971-81) (Per cent)	Density of population (Persons per sq km)	Sex ratio (Females per '000 males)
Balaghat	9,229	1,148	17.4	124	1,006
Bastar	39,114	1,840	21.4	47	1,003
Betul	10,043	924	25.5	92	974
Bhind	4,459	970	22.2	218	832
Bhopal	2,772	896	56.6	323	871
Bilaspur	19,897	2,952	20.9	148	995
Chhatarpur	8,687	886	24.3	102	864
Chhindwara	11,815	1,233	24.6	104	965
Damoh	7,306	721	25.8	99	926
Datia	2,038	312	22.1	153	853
Dewas	7,020	794	33.7	113	929
Dhar	8,153	1,056	25.3	130	967
Durg	8,537	1,890	28.6	221	980
East Nimar (Khandwa)	10,779	1,154	31.3	107	938
Guna	11,065	997	27.2	90	883
Gwalior	5,214	1,111	29.5	213	841
Hoshangabad	10,037	1,004	24.2	100	908
Indore	3,898	1,406	37.1	361	900
Jabalpur	10,160	2,193	30.1	216	913
Jhabua	6,782	796	19.2	117	985
Mandla	13,269	1,036	18.6	78	1,004
Mandsaur	9,791	1,262	31.3	129	941
Morena	11,594	1,301	32.1	112	835
Narsimhapur	5,133	650	25.1	127	931
Panna	7,135	540	25.8	76	913
Raigarh	12,924	1,442	12.8	112	1,006
Raipur	21,258	3,078	17.8	145	1,007
Raisen	8,466	709	28.2	84	908
Rajgarh	6,154	802	24.4	130	935
Rajnandgaon	11,127	1,166	17.5	105	1,020
Ratlam	4,861	738	25.0	161	946
Rewa	6,314	1,203	23.0	191	972
Sagar	10,252	1,321	24.4	129	891
Satna	7,502	1,152	26.1	154	937
Sehore	6,578	657	28.6	100	908
Seoni	8,758	810	21.1	92	982
Shahdol	14,028	1,344	30.5	96	949
Shajapur	6,196	840	23.8	136	930
Shivpuri	10,278	866	27.9	84	855
Sidhi	10,526	989	27.3	94	952
Surguja	22,337	1,631	23.0	73	964
Tikamgarh	5,048	737	29.5	146	883
Ujjain	6,091	1,116	29.4	183	927
Vidisha	7,371	783	19.0	106	882
West Nimar (Khargone)	13,450	1,631	26.9	121	954
Madhya Pradesh	4,43,446	52,132	25.2	118	941

SOURCE : Director of Census Operations, Madhya Pradesh, Census of India 1981, Series 11, Madhya Pradesh, Paper-1 of 1981, Provisional Population Totals and Supplement

2. POWER

**Table 2.1 : Installed capacity and power generation in Madhya Pradesh
1956 to 1981-82**

Year	Installed capacity (mw)	Power generation (Million kwh)	Power generated per kw of capacity (kwh)	Capacity utilisation (per cent)
1956	82	169	2,061	23.5
1960-61	207	404	1,952	22.3
1965-66	288	1,140	3,958	45.2
1971-72	709	2,974	4,195	47.9
1972-73	742	3,499	4,517	51.6
1973-74	758	3,258	4,298	49.1
1974-75	776	3,620	4,665	53.3
1975-76	892	4,140	4,641	53.0
1976-77	893	4,459	4,993	60.0
1977-78	1,135	5,194	4,576	52.2
1978-79	1,318	5,244	3,979	45.4
1979-80	1,379	6,087	4,414	50.4
1980-81	1,590	6,536	4,111	46.9
1981-82	1,678	7,027	4,188	47.8

SOURCES :

1. Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics*, various issues
2. Government of India, Ministry of Energy, Department of Power, Central Electricity Authority
 - (i) *Public Electricity Supply, All-India Statistics, General Review, 1977-78 and 1978-79* and
 - (ii) *Bulletin on Monthly Power Supply Position*, various issues

Table 2.2: Major power projects in Madhya Pradesh as on March 31, 1982

Project	District	Installed capacity (mw)		
		Completed	Under execution	Total
Korba (T)	Bilaspur	540	840	1,380
Satpura (T)	Betul	723	420	1,143
Amarkantak (T)	Shahdol	300	—	300
Gandhisagar (H)	Mandsaur	115	—	115
Chandhini (T)	Khargone	17	—	17
Indore (T)	Indore	13	—	13
Jabalpur (T)	Jabalpur	6	—	6
Bhopal (T)	Bhopal	5	—	5
Raipur (T)	Raipur	4	—	4
Gwalior (T)	Gwalior	2	—	2
Pench (H)	Chhindwara	—	108	108
(MP's share)				
Bargi (H)	Jabalpur	—	90	90
Birsinghpur (T)	Satna	—	420	420
Bodhghat (H)	Bastar	—	500	500

Note: T = Thermal; H = Hydro

SOURCE:

1. Government of India, Ministry of Energy, Central Electricity Authority, Department of Power, *A Monthly Bulletin of Power Supply Position*, various issues
2. *Communication from Department of Energy*, Government of Madhya Pradesh, Bhopal

Table 2.3: Villages electrified and pumpsets/tubewells energised in Madhya Pradesh

Year	Number of villages electrified	Percentage to total number of villages	Number of pumpsets/tubewells energised
1957-58	328	0.5	633
1960-61	377	0.5	1,822
1965-66	1,125	1.6	7,314
1968-69	2,754	3.9	24,631
1973-74	10,703	15.1	1,15,560
1974-75	11,304	15.9	1,33,295
1975-76	11,822	16.7	1,46,739
1976-77	13,829	19.5	1,80,282
1977-78	16,350	23.1	2,13,654
1978-79	19,101	26.9	2,42,138
1979-80	22,050	31.1	2,79,431
1980-81	26,002	36.7	3,16,988
1981-82	29,020	40.9	4,43,717

SOURCES:

1. Government of India, Ministry of Energy, Department of Power, Central Electricity Authority, *Public Electricity Supply, All-India Statistics, General Review, 1975-76 and 1978-79*
2. Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics, 1976, 1978 and 1979*.
3. Rural Electrification Corporation Limited, *Annual Reports and Statement of Accounts 1980-81*
4. *Communication from Directorate of Information & Publicity*, Government of Madhya Pradesh, Bhopal

**Table 2.4 : District-wise villages electrified in Madhya Pradesh
1955-56, 1960-61 and 1980-81**

District	1955-56		1960-61		1980-81	
	Number	Per cent to total	Number	Per cent to total	Number	Per cent to total
Balaghat	—	—	13	3.4	461	1.8
Bastar	—	—	NA	NA	438	1.7
Betul	—	—	12	3.2	370	1.5
Bhind	—	—	NA	NA	548	2.2
Bhopal	—	—	(a)	(a)	181	0.7
Bilaspur	—	—	16	4.2	1,152	4.5
Chhatarpur	1	2.2	6	1.6	408	1.6
Chhindwara	10	22.2	42	11.1	1,308	5.2
Damoh	—	—	NA	NA	438	1.7
Datia	—	—	NA	NA	162	0.6
Dewas	1	2.2	2	0.5	622	2.4
Dhar	—	—	5	1.3	639	2.5
Durg	3	6.8	34	9.0	836	3.3
East Nimar (Khandwa)	2*	4.4	22	5.8	659	2.6
Guna	—	—	NA	NA	552	2.2
Gwalior	—	—	3	0.8	363	1.4
Hoshangabad	3	6.8	NA	NA	617	2.4
Indore	1	2.2	14	3.7	523	2.1
Jabalpur	10	22.2	53	14.1	731	2.9
Jhabua	—	—	NA	NA	345	1.4
Mandla	—	—	NA	NA	414	1.6
Mandsaur	—	—	4	1.1	1,180	4.6
Morena	—	—	4	1.1	593	2.3
Narsimhapur	1	2.2	10	2.7	518	2.0
Panna	2	4.4	2	0.5	214	0.8
Raigarh	1	2.2	1	0.3	549	2.2
Raipur	10	22.2	43	11.4	1,211	4.8
Raisen	—	—	9	2.4	286	1.1
Rajgarh	—	—	NA	NA	418	1.7
Rajnandgaon	(b)	(b)	(b)	(b)	638	2.5
Ratlam	—	—	1	0.3	511	2.0
Rewa	—	—	5	1.3	553	2.2
Sagar	—	—	7	1.9	787	3.1
Satna	—	—	17	4.5	564	2.2
Sehore	—	—	11	2.9	478	1.9
Seoni	—	—	1	0.3	619	2.4
Shahdol	—	—	2	0.5	247	1.0
Shajapur	—	—	1	0.3	471	1.9
Shivpuri	—	—	NA	NA	448	1.8
Sidhi	—	—	NA	NA	262	1.0
Surguja	—	—	—	—	634	2.5
Tikamgarh	—	—	NA	NA	316	1.2
Ujjain	—	—	13	3.4	955	3.8
Vidisha	—	—	NA	NA	301	1.2
West Nimar (Khargone)	—	—	NA	NA	880	3.5
Madhya Pradesh	45	100.0	377*	100.0	25,400	100.0

Notes: (a) Included in Sehore district

(b) Included in Durg district

* The actual total adds up to 353 and as such percentages would not add up to 100

(—) = Nil NA = Not available

SOURCE: Madhya Pradesh State Electricity Board, Jabalpur

3. IRRIGATION

**Table 3.1 : Source-wise net irrigated area in Madhya Pradesh
1955-56 to 1980-81**

('000 hectares)

Year	Canals	Tanks	Wells	Other sources	Total
1955-56	370.4	118.6	297.9	37.8	824.7
1960-61	440.5	122.3	324.3	36.5	923.6
1965-66	461.2	118.2	344.8	52.3	976.5
1970-71	710.3	130.0	562.1	78.1	1480.5
1971-72	765.8	154.4	619.7	102.6	1642.5
1972-73	778.9	145.9	644.1	129.8	1698.7
1973-74	712.6	119.3	656.4	137.3	1625.6
1974-75	679.2	152.3	670.1	133.0	1634.6
1975-76	800.7	132.1	726.0	145.2	1804.0
1976-77	873.9	179.3	775.2	153.6	1982.0
1977-78	972.1	143.4	821.3	216.2	2153.0
1978-79	1064.8	139.8	896.7	213.7	2315.1
1979-80	914.9	142.6	868.5	216.2	2142.2
1980-81	1034.5	135.8	986.7	174.9	2331.9

SOURCES :

1. Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics*, various issues
2. *Communication* from Commissioner for Land Records and Settlements, Government of Madhya Pradesh, Gwalior

**Table 3.2 : Districtwise and sourcewise net irrigated area in Madhya Pradesh
1957-58 and 1980-81**

(Hectares)

District	Canals		Tanks		Tubewells		Wells		Others		Total	
	1957-58	1980-81	1957-58	1980-81	1957-58	1980-81	1957-58	1980-81	1957-58	1980-81	1957-58	1980-81
Balaghat	41,953	67,552	43,968	33,656	—	—	1,893	5,488	1,852	3,335	89,665	1,10,031
Bastar	—	992	10,587	6,131	—	29	57	906	4,759	2,470	15,404	10,528
Betul	791	5,769	30	67	—	29	16,382	33,728	366	2,495	17,569	42,088
Bhind	21,575	60,719	306	476	—	14,719	2,204	13,474	115	1,703	24,382	91,091
Bhopal	—	1,689	—	167	—	805	—	6,959	—	3,266	—	12,886
Bilaspur	71,231	1,28,293	73,680	10,021	—	67	1,953	6,082	3,939	2,981	1,50,803	1,47,444
Chhatarpur	746	14,815	1,777	1,772	—	10	36,296	62,953	149	2,502	38,967	82,052
Chhindwara	—	1,085	179	649	—	—	13,321	42,616	306	2,345	13,806	46,695
Damoh	4,390	6,043	1,056	51	—	5	781	2,964	260	4,051	6,487	13,114
Datia	421	13,020	28	84	—	84	3,676	21,002	—	123	4,125	34,313
Dewas	—	3,597	247	650	—	955	2,689	28,546	195	5,170	3,131	38,918
Dhar	—	3,165	430	1,532	—	2,632	13,035	45,315	428	5,011	13,893	57,655
Durg	76,126	1,11,850	22,088	8,132	—	434	1,560	5,191	4,402	7,466	1,04,176	1,33,073
East Nimar (Khandwa)	27	649	—	22	—	8	8,428	42,356	119	2,384	8,574	45,419
Guna	2,709	7,261	345	3,394	—	125	6,747	11,762	154	2,577	9,955	25,079
Gwalior	35,906	57,520	1,978	1,735	—	118	5,470	24,653	388	2,095	43,741	86,121
Hoshangabad	75	39,926	—	167	—	8,512	3,461	17,712	249	3,035	3,785	69,352
Indore	412	2,177	381	2,020	—	2,275	4,477	33,675	240	6,089	5,510	46,236
Jabalpur	7,482	12,320	287	372	—	2,508	1,528	7,883	572	6,610	9,870	29,693
Jhabua	—	4,485	21	526	—	—	2,371	8,722	59	4,583	2,450	18,316
Mandla	—	4,631	49	915	—	—	451	1,574	413	294	913	7,414
Mandsaur	—	2,149	629	355	—	—	33,174	78,828	814	3,801	34,616	85,133
Morena	3,565	1,08,580	2,409	1,718	—	21,573	8,125	27,980	170	991	14,270	1,60,842
Narsimhapur	—	453	—	9	—	5,922	1,778	17,028	119	2,069	1,898	25,481
Panna	625	5,751	336	409	—	55	2,363	4,747	47	3,997	3,371	14,959
Raigarh	—	9,601	12,750	2,540	—	508	552	1,957	2,725	3,278	16,028	17,884
Raipur	1,05,853	2,26,300	52,974	22,900	—	1,313	3,071	7,189	12,097	13,051	1,73,995	2,70,753
Raisen	1,856	12,725	4	12	—	862	415	1,814	77	4,055	2,352	19,468
Rajgarh	9	251	141	422	—	—	11,373	25,558	103	1,918	11,625	28,149
Rajnandgaon	—	30,825	—	5,476	—	124	—	2,213	—	4,275	—	42,913
Ratlam	—	—	59	2,645	—	253	9,669	29,598	65	3,074	9,794	35,570
Rewa	—	9,110	162	1,502	—	310	1,497	4,487	—	7,026	1,659	22,435
Sagar	1,599	5,576	184	349	—	110	3,203	8,307	310	8,349	5,295	22,691
Satna	142	2,526	16	200	—	217	679	6,024	117	7,155	955	16,122
Sehore	1,169	2,919	981	1,642	—	1,622	6,985	15,829	2,408	6,398	11,544	28,400
Seoni	10,916	13,150	7,052	5,705	—	—	1,185	3,863	2,513	1,849	21,666	24,567
Shahdol	—	6,027	1,353	408	—	—	356	334	52	257	1,761	7,026
Shajapur	204	6,702	856	1,295	—	45	7,802	25,254	26	2,869	8,887	36,165
Shivpuri	2,109	7,541	3,648	2,054	—	12	26,607	56,286	475	4,352	32,838	70,245
Sidhi	—	4,810	37	104	—	296	420	3,853	26	1,200	483	10,263
Surguja	—	3,514	155	372	—	929	1,548	3,653	1,009	3,970	2,712	12,438
Tikamgarh	5,305	15,270	1,344	5,518	—	198	33,343	68,175	14	2,571	40,006	91,732
Ujjain	284	3,169	260	752	—	112	4,068	34,181	164	8,211	4,777	46,425
Vidisha	48	6,984	—	52	—	—	663	2,083	40	3,167	751	12,286
West Nimar (Khargone)	2,896	3,034	665	6,852	—	150	13,731	65,992	38	6,437	17,330	82,465
Madhya Pradesh	4,00,606	10,34,525	2,43,452	1,35,830	—	67,916	2,99,387	9,18,794	42,374	1,74,865	9,85,819	23,31,930

(—) = Nil

SOURCE : Communication from Commissioner for Land Records and Settlements, Government of Madhya Pradesh, Gwalior

4. TRANSPORT AND COMMUNICATION

Table 4.1 : Registered motor vehicles in Madhya Pradesh : 1957-58 to 1979-80

(Number)

Year	Cars & jeeps	Taxis	Buses	Trucks	Three wheelers	Two wheelers	Goods vehicles	Others	Total
1957-58	8,768	201	2,972	6,771	N.A.	2,140	N.A.	1,480	22,332
1960-61	9,292	411	3,613	8,429	N.A.	3,560	N.A.	1,996	27,301
1965-66	17,992	N.A.	4,909	15,932	881	12,652	2,158	4,445	58,969
1970-71	23,993	N.A.	6,350	20,204	1,849	39,781	(a)	11,944	1,04,121
1975-76	31,163	1,485	7,940	26,759	5,279	83,568	16,341	7,292	1,79,827
1976-77	32,246	1,186	8,872	27,888	5,968	99,464	18,894	8,469	2,02,987
1977-78	33,560	1,281	9,520	29,158	6,485	1,15,233	20,790	9,251	2,25,278
1978-79	34,903	1,056	10,249	31,402	7,050	1,32,603	21,544	9,597	2,48,404
1979-80	36,484	1,125	10,674	33,263	7,465	1,50,751	23,966	10,381	2,74,109

Notes: (a) Included under others N.A. = Not available

SOURCE: Sandarbha : 1982, Madhya Pradesh, Labhchand Prakashan, Nai Duniya Complex, Indore

Table 4.2 : Road length in Madhya Pradesh : 1955-56 to 1981-82

(Km.)

Year	National highways	State roads			
		Surfaced	Unsurfaced	Total (2+3)	Total (1+4)
	1	2	3	4	5
1955-56	2,030	17,226	8,917	26,143	28,173
1960-61	2,568	20,412	9,257	29,669	32,237
1965-66	2,578	22,804	10,539	33,343	35,921
1970-71	2,578	30,347	9,381	39,728	42,306
1977-78	2,585	40,215	13,073	53,288	55,873
1979-80	2,676	43,098	14,873	57,971	60,647
1980-81	2,676	45,779	14,924	60,703	66,055
1981-82(a)	2,676	48,252	14,924	63,176	65,852

Notes: (a) As on April 1, 1982**SOURCES:**

1. *Sandarbha 1982, Madhya Pradesh*, Lalbhachand Prakashan, Nai Duniya Complex, Indore
2. *Communication from Public Works Department*, Government of Madhya Pradesh, Bhopal

Table 4.3 : Districtwise road length in Madhya Pradesh : 1965-66 and 1980-81

(Km.)

	1965-66	1980-81
Balaghat	716.2	2,114.0
Bastar	1,660.8	3,136.0
Betul	630.8	1,163.1
Bhind	447.3	622.9
Bhopal	(a)	431.5
Bilaspur	1,450.0	4,001.7
Chhatarpur	1,210.3	1,354.5
Chhindwara	737.1	1,214.3
Damoh	624.4	1,367.5
Datia	268.8	362.7
Dewas	381.4	618.4
Dhar	751.5	1,565.4
Durg	1,277.9	2,292.8
East Nimar (Khandwa)	898.0	1,258.7
Guna	767.7	1,070.3
Gwalior	460.3	800.2
Hoshangabad	672.8	1,191.1
Indore	563.3	854.1
Jabalpur	1,202.3	1,849.7
Jhabua	280.0	1,311.2
Mandla	1,429.1	2,105.2
Mandsaur	766.1	1,110.0
Morena	711.3	947.1
Narsimhapur	371.7	644.4
Panna	685.6	932.5
Raigarh	1,182.8	1,814.8
Raipur	1,489.9	4,587.9
Raisen	622.7	640.6
Rajgarh	387.8	791.0
Rajnandgaon	(b)	1,680.7
Ratlam	384.6	629.9
Rewa	1,194.2	1,520.6
Sagar	867.4	1,210.4
Satna	1,255.3	1,618.0
Sehore	603.5	583.2
Seoni	540.7	1,002.0
Shahdol	1,268.2	2,096.6
Shajapur	313.9	563.2
Shivpuri	706.5	1,090.3
Sidhi	1,538.5	1,892.0
Surguja	1,319.7	2,720.3
Tikamgarh	941.4	1,126.3
Ujjain	515.0	723.7
Vidisha	581.0	737.2
West Nimar (Khargone)	1,244.1	2,031.7
Madhya Pradesh	35,921.9	63,378.8

Notes: (a) Included in Sehore district
(b) Included in Durg district

SOURCE : Communication from Engineer-in-Chief, Works Department (B&R), Government of Madhya Pradesh, Bhopal

Table 4.4: Railway route length in Madhya Pradesh: 1955-56 to 1979-80

(Km.)

Year	Type of railway			Total	Railway route length per thousand sq. km. of area	Railway route length per lakh population
	Broad gauge	Metre gauge	Narrow gauge			
1955-56	3,312.9	429.6	1,148.8	4,891.3	11.0	18.8
1960-61	3,538.0	497.4	1,117.8	5,153.2	11.6	15.5
1965-66	3,647.2	497.4	1,137.8	5,282.4	11.9	14.1
1970-71	3,823.6	497.7	1,137.9	5,459.2	12.9	13.1
1975-76	4,067.9	497.8	954.7	5,520.4	12.9	11.8
1979-80	4,264.4	497.8	947.7	5,709.9	12.9	11.0

SOURCE: Sandarbha: 1982, Madhya Pradesh, Labhchand Prakashan, Nai Duniya Complex, Indore

Table 4.5: Post offices, letter boxes and telephone connections in Madhya Pradesh 1957-58 to 1981-82.

(Number)

Year	Post offices	Letter boxes	Working telephone connections.
1957-58	3,854	6,100	5,771
1960-61	4,099	5,641	10,853
1965-66	5,809	N.A.	N.A.
1970-71	6,041	N.A.	N.A.
1975-76	6,773	11,931	N.A.
1977-78	7,930	18,048	N.A.
1978-79	8,837	28,983	N.A.
1979-80	9,715	N.A.	70,257
1980-81	9,934	39,624	N.A.
1981-82(a)	10,091	N.A.	N.A.

Notes: (a) Up to December 15, 1981

N.A. = Not available

SOURCES:

1. Sandarbha: 1982, Madhya Pradesh, Labhchand Prakashan, Nai Duniya Complex, Indore
2. Communication from Post Master General and General Manager, Telecommunications, Madhya Pradesh Circle, Bhopal

**Table 4.6 : Districtwise post offices in Madhya Pradesh
(As on November 15, 1981)**

District	Number of post offices	Average area per post office (sq. km.)	Average population per post office (Number)
Balaghat	206	45	5,571
Bastar	531	73	3,446
Betul	215	48	4,380
Bhind	244	18	3,974
Bhopal	129	21	6,944
Bilaspur	529	38	5,581
Chhatarpur	205	42	4,321
Chhindwara	245	48	5,031
Damoh	149	49	4,839
Datia	97	21	3,213
Dewas	163	43	4,875
Dhar	158	52	6,725
Durg	307	28	6,196
East Nimar (Khandwa)	202	53	5,717
Guna	199	56	5,010
Gwalior	186	28	5,974
Hoshangabad	241	42	4,163
Indore	166	24	8,469
Jabalpur	409	25	5,377
Jhabua	141	48	5,644
Mandla	201	66	5,155
Mandsaur	291	34	4,338
Morena	225	52	5,783
Narsimhapur	183	28	3,550
Panna	106	67	5,093
Raigarh	353	37	4,085
Raipur	494	43	6,238
Raisen	192	44	3,693
Rajgarh	161	38	4,978
Rajnandgaon	185	60	6,305
Ratlam	155	31	5,054
Rewa	273	23	4,416
Sagar	217	47	6,091
Satna	241	31	4,781
Sehore	168	39	3,911
Seoni	181	48	4,472
Shahdol	275	51	4,887
Shajapur	179	35	4,693
Shivpuri	248	41	3,489
Sidhi	149	71	6,637
Surguja	231	97	7,061
Tikamgarh	174	29	4,232
Ujjain	189	32	5,906
Vidisha	140	53	5,595
West Nimar (Khargone)	255	53	6,395
Total	10,188	43*	5,117*

* Worked out by Commerce Research Bureau

SOURCE : Communication from Post Master General, Madhya Pradesh Postal Circle, Bhopal

5. EDUCATION

Table 5.1 : Growth of literacy in Madhya Pradesh : 1961, 1971 and 1981

Year	Madhya Pradesh			All-India		
	Literates (a) (‘000 number)	Literates as per cent of total population	Decadal growth rate (per cent)	Literates (a) (‘000 number)	Literates as per cent of total population	Decadal growth rate (per cent)
1961	5,536	17.1	N.A.	77,906	24.0	68.4
1971	9,223	22.1	66.6	1,12,013	29.5	43.8
1981	14,502	27.8	57.2	2,39,296(b)	36.0(b)	24.8

Notes: (a) Literate population includes 0—4 age group
(b) Excludes data for Assam
N.A. = Not available

SOURCES:

1. Registrar General and Census Commissioner, *Census of India 1981, Series 1, Paper 1 of 1981, Provisional Population Totals*, March 1981
2. Director of Census Operations, Madhya Pradesh, *Census of India 1971, General Population Tables Part II-A, 1974*

**Table 5.2 : Educational Institutions and enrolment in Madhya Pradesh
1956-57 to 1979-80**

(Number)

Year	Primary : Class I to V (age group 6 to 11)		Middle : Class VI to VIII (age group 11 to 14)		Higher secondary : Class IX to XI (age group 14 to 16)	
	Educational institutions	Students enrolled	Educational institutions	Students enrolled	Educational institutions	Students enrolled
1956-57	22,762	12,71,376	1,604	3,42,385	414	1,55,383
1960-61	27,781	16,81,720	2,445	4,88,684	774	2,78,086
1965-66	34,435	23,75,026	4,547	8,16,799	1,297	4,96,964
1970-71	37,037	25,96,242	5,830	9,96,567	1,618	5,89,690
1975-76	51,321*	36,17,914*	8,530	11,13,958	2,027	5,09,733
1976-77	52,033*	38,77,000*	8,571	13,04,000	2,018	6,01,000
1977-78	52,349*	38,08,459*	8,681	13,71,755	2,026	6,78,953
1978-79	53,572*	44,49,946*	9,082	11,42,605	2,081	4,32,923
1979-80	55,378*	42,88,726*	9,646	15,08,171	2,145	7,94,148

Note: * Includes pre-school enrolment

Figures do not tally with table 5.4 and 5.5 because of difference in source

SOURCE: Sandarbha: 1982, Madhya Pradesh, Labhachand Prakashan, Nai Duniya Complex, Indore

Table 5.3 : Districtwise literacy in Madhya Pradesh : 1981

District	Literate population ('000)			Percentage of literates to total population		
	Persons	Males	Females	Persons	Males	Females
Balaghat	390	270	120	16.2	24.6	7.6
Bastar	260	193	67	13.1	21.0	7.3
Betul	260	181	79	28.1	38.6	17.4
Bhind	302	238	64	31.2	45.0	14.6
Bhopal	422	265	157	47.1	55.4	37.5
Bilaspur	842	631	211	28.5	42.6	14.4
Chhatarpur	178	136	42	20.1	28.7	10.2
Chhindwara	348	242	106	28.2	38.6	17.5
Damoh	216	159	57	29.9	42.5	16.4
Datia	86	69	17	27.7	40.9	12.2
Dewas	209	162	47	26.4	39.4	12.3
Dhar	213	160	53	20.2	29.8	10.3
Durg	714	491	223	37.8	51.4	23.9
East Nimar (Khandwa)	353	248	105	30.6	41.6	18.9
Guna	215	172	43	21.6	32.4	9.3
Gwalior	441	310	131	39.7	51.4	25.8
Hoshangabad	355	250	105	35.3	47.5	21.9
Indore	689	443	246	49.0	59.9	36.9
Jabalpur	898	603	295	41.0	52.6	28.2
Jhabua	87	62	25	11.0	15.5	6.4
Mandla	237	179	58	22.9	34.7	11.2
Mandsaur	394	302	92	31.2	46.5	15.0
Morena	333	273	60	25.6	38.5	10.1
Narsimhapur	216	149	67	33.3	44.3	21.4
Panna	104	82	22	19.3	29.2	8.6
Raigarh	380	276	104	26.4	38.4	14.5
Raipur	942	682	260	30.6	44.5	16.8
Raisen	164	125	39	23.1	33.5	11.6
Rajgarh	146	118	28	18.2	28.4	7.3
Rajnandgaon	309	232	77	26.5	40.2	13.1
Ratlam	231	164	67	29.5	40.6	17.6
Rewa	302	234	68	25.1	38.4	11.5
Sagar	451	320	131	34.1	45.8	21.0
Satna	310	235	75	26.8	39.5	13.3
Sehore	153	122	31	23.4	35.5	9.8
Seoni	218	156	62	27.0	38.3	15.5
Shahdol	262	204	58	19.5	29.6	8.9
Shajapur	199	161	38	23.7	37.0	9.3
Shivpuri	177	145	32	20.5	31.1	8.1
Sidhi	149	125	24	15.0	24.7	4.9
Surguja	265	204	61	16.2	24.6	7.6
Tikamgarh	139	110	29	18.9	28.3	8.3
Ujjain	368	262	106	33.0	45.3	19.7
Vidisha	200	152	48	25.5	36.5	13.0
West Nimar (Khargone)	374	277	97	22.9	33.2	12.2
Madhya Pradesh	14,502	10,575	3,927	27.8	39.4	15.5

SOURCE : Director of Census Operations, Madhya Pradesh, *Census of India 1981, Series 11, Madhya Pradesh, Paper 1 of 1981, Provisional Population Totals*

Table 5.4: Enrolment in schools in Madhya Pradesh: 1979-80 to 1984-85*(Lakhs)*

Year	Primary schools (classes I to V)			Middle schools (classes VI to VIII)		
	Boys	Girls	Total	Boys	Girls	Total
1979-80	32.82 (83.72)	15.68 (43.15)	48.50 (64.20)	9.12 (45.51)	3.04 (15.56)	12.16 (30.02)
1980-81	33.42 (83.77)	15.78 (43.27)	49.20 (64.35)	9.42 (44.18)	3.11 (15.64)	12.53 (30.41)
1981-82 (Anticipated)	34.50 (86.32)	16.00 (43.06)	50.50 (64.49)	9.80 (46.22)	3.20 (15.82)	13.00 (30.48)
1982-83 (Target)	35.70 (86.59)	17.30 (45.51)	53.00 (66.88)	10.20 (45.52)	3.40 (16.22)	13.60 (31.36)
1984-85 (Target)	40.54 (91.14)	19.16 (47.12)	59.69 (70.12)	12.76 (51.49)	4.07 (17.47)	16.83 (36.00)

Notes: Figures in brackets indicate students enrolled as per cent of total boys and girls in the age group of 6 to 11 for primary schools and 11 to 14 for middle schools.

Figures do not tally with table 5.2 and 5.5 because of difference in source.

SOURCE: Communication from Education Department, Government of Madhya Pradesh, Bhopal

Table 5.5 : Districtwise education statistics in Madhya Pradesh : 1963-64 and 1979-80

(Number)

District	1963-64						1979-80					
	Primary schools		Middle schools		Higher secondary schools		Primary schools		Middle schools		Higher secondary schools	
	Institu- tions	Students	Institu- tions	Students	Institu- tions	Students	Institu- tions	Students	Institu- tions	Students	Institu- tions	Students
Balaghat	798	76110	95	10329	24	4204	1292	114913	205	30153	37	14181
Bastar	1185	82649	105	6161	13	1644	2668	148063	341	16329	51	10089
Betul	607	50761	78	10688	21	2729	1045	102014	174	19359	40	14927
Bhind	404	61758	171	10214	30	6019	858	68745	287	72177	53	17406
Bhopal	1824	97279	172	15515	51	6816	576	66052	208	54633	58	44175
Bilaspur	1766	146043	..	41931	49	9993	3203	259628	511	37584	128	48246
Chhatarpur	650	33873	55	6760	24	3773	901	57457	140	28084	34	13615
Chhindwara	800	68926	90	12242	34	4835	1366	124028	211	19213	55	20925
Damoh	361	30980	37	6357	16	3492	683	61424	112	19645	26	9762
Datia	280	15616	28	2999	7	1582	349	29592	65	8271	13	3158
Dewas	440	32643	59	5624	13	2594	695	50325	133	36854	27	7860
Dhar	681	43594	72	5809	16	2111	995	59892	196	38619	43	14607
Durg	1804	173749	239	24103	57	8719	1777	194499	376	46309	82	20997
East Nimar (Khandwa)	692	62340	65	9385	30	4792	1066	95782	171	22160	44	20651
Guna	710	34063	51	3611	15	2179	983	63316	156	29713	26	5742
Gwalior	809	67921	96	16810	37	8288	1067	103484	264	30845	62	22481
Hoshangabad	702	65624	91	12897	40	5280	1021	92986	179	27209	55	24380
Indore	598	98620	..	30327	48	14348	811	118719	336	92,105	73	49227
Jabalpur	935	101916	134	27998	31	14906	1608	210091	331	71046	129	64433
Jhabua	515	33785	34	2576	13	941	875	41998	125	15035	30	7958
Mandla	728	48859	87	7375	18	2700	1324	86437	203	23776	38	9793
Mandsaur	693	60119	96	12081	29	5362	1048	115340	257	57656	58	12000
Morena	1033	77304	82	10024	29	412	1514	127887	236	31921	53	13829
Narsimhapur	385	41447	89	8948	22	3996	589	59352	130	23966	42	14260
Panna	488	22527	28	4120	13	1621	641	36,818	92	16818	18	7010
Raigarh	1129	80595	108	11806	22	3699	1928	128036	301	25561	55	21634
Raipur	1867	209591	..	44889	58	13583	3125	302061	523	64913	121	31279
Raisen	..	..	..	..	..	..	992	52648	165	15644	26	5171
Rajgarh	570	30660	49	5026	14	1966	683	53895	122	9647	22	4432
Rajnandgaon	..	..	..	..	..	..	1425	109585	227	24923	34	8884
Ratlam	559	43378	77	7,322	17	3406	752	50065	168	36022	30	11168
Rewa	873	69188	78	16351	31	9921	1131	72534	268	64234	70	32734
Sagar	782	77412	71	12733	32	5805	1124	117966	202	35668	58	30036
Satna	811	51475	77	11899	26	5207	1032	67346	190	50065	54	26467
Sehore	..	..	..	..	..	..	797	50763	158	13281	21	5000
Seoni	425	40933	62	6366	19	1892	961	70194	158	16676	31	10811
Shahdol	1054	34512	66	6805	29	2953	1463	69543	253	38344	50	25134
Shajapur	546	43287	56	6888	20	3376	765	47171	158	36053	33	5368
Shivpuri	670	38536	60	4931	17	1890	1032	68406	152	14207	26	5542
Sidhi	688	29997	39	4253	15	2388	1044	52379	163	18650	31	11113
Surguja	1665	77630	86	6043	19	2074	2191	127549	294	13962	45	16018
Tikamgarh	518	31671	20	5029	12	2626	645	53081	106	26976	28	9991
Ujjain	585	47130	46	11558	23	5165	1015	92509	183	54542	49	13455
Vidisha	548	31045	40	4185	13	2113	918	63000	141	14239	22	5932
West Nimar (Khargone)	1017	62083	92	10017	31	4424	1487	101353	279	65084	64	22267
Madhya Pradesh	34245	2620132	3581	481164	1128	194922	53465	4238926	9646	1508171	2145	794148

(..) = Not available

Figures do not tally with table 5.2 and 5.4 because of difference in source

SOURCE : Communication from Directorate of Economics and Statistics, Government of Madhya Pradesh, Bhopal

(Number)

SOURCE: Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics, 1980.*

(Number)

SOURCE: Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics, 1980*

Table 6.3 : Districtwise hospitals, hospital beds and primary health centres in Madhya Pradesh: 1960-61 and 1981-82

(Number)

District	1960-61			1981-82		
	Hospitals & dispensaries	Hospital beds (sanctioned)	Primary health centres	Hospitals & dispensaries	Hospital beds (sanctioned)	Primary health centres
Balaghat	10	163	7	18	178	10
Bastar	18	256	14	21	204	33
Betul	6	78	6	10	120	10
Bhind	4	101	4	7	113	6
Bhopal	(a)	(a)	(a)	28	1,494	2
Bilaspur	10	246	15	26	431	25
Chhatarpur	17	240	5	20	152	8
Chhindwara	6	246	7	12	202	11
Damoh	2	61	5	2	51	7
Datia	6	91	1	8	78	2
Dewas	15	183	3	16	140	6
Dhar	31	239	5	29	138	13
Durg	11	220	14	12	247	12
East Nimar (Khandwa)	18	313	6	18	346	10
Guna	11	125	5	13	160	9
Gwalior	12	1,017	3	14	1,220	5
Hoshangabad	11	226	6	10	272	10
Indore	27	1,186	3	30	1,290	5
Jabalpur	12	534	9	21	1,259	15
Jhabua	21	163	6	17	164	12
Mandla	6	85	7	8	114	16
Mandsaur	31	382	5	30	420	8
Morena	6	146	5	9	180	10
Narsimhapur	7	88	4	10	109	6
Panna	6	80	3	8	116	5
Raigarh	14	219	9	19	320	18
Raipur	17	583	15	18	972	23
Raisen	45	108	7	47	70	7
Rajgarh	24	244	3	25	199	6
Rajnandgaon	(b)	(b)	(b)	8	100	12
Ratlam	21	389	3	21	328	6
Rewa	4	448	5	10	526	9
Sagar	6	146	7	13	180	11
Satna	15	150	5	20	216	8
Sehore	58	1,330	7	40	170	5
Seoni	4	81	5	11	156	8
Shahdol	12	144	6	15	264	12
Shajapur	9	122	4	11	172	7
Shivpuri	6	115	4	6	122	8
Sidhi	6	66	4	10	150	8
Surguja	10	154	12	11	138	25
Tikamgarh	6	104	3	7	91	7
Ujjain	17	452	4	18	566	6
Vidisha	8	124	4	9	190	7
West Nimar	45	412	7	48	290	16
Madhya Pradesh	631	11,860	262	764	14,418	465

Notes: (a) Included in Sehore district
(b) Included in Durg district

SOURCE: Government of Madhya Pradesh, Directorate of Health Services, Bhopal

Organisation	1975-76	1976-77	1977-78	1978-79	1979-80
I State Family Planning Welfare Bureau	1	1	1	1	1
II District Family Welfare Bureau	43	43	43	45	45
III Urban family planning welfare centres:					
(a) Government centres	86	86	86	86	86
(b) Voluntary Organisations	11	11	11	11	10
(c) Public sector undertakings	5	5	5	5	5
(d) Local bodies	1	1	1	1	1
IV Rural family planning welfare centres	254	452	452	452	460
V Rural sub-centres (health and family welfare)	3,049	3,374	3,374	4,031	4,526
VI Post mortem centres	22	44	44	44	45
VII Regional family planning training centres	3	3	3	3	4
Total	3,475	4,020	4,020	4,679	5,183

SOURCE: Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics, 1980*

Degree/course	1960-61	1965-66	1970-71	1973-74	1975-76	1976-77
M.B.B.S.	226	295	749	688	727	747
M.D.	12	22	40	92	108	132
M.S.	18	19	56	92	97	108
B.Sc and nurses	77	168	231	193	324	212
Health visitors and staff nurses	45	51	25	10	10	10
Auxiliary nurses	121	185	386	506	550	512
Lab. technicians	12	30	30	10	44	57
Compounders	75	167	167	50	43	73

SOURCE: Government of Madhya Pradesh, Directorate of Economics and Statistics, *Pocket Compendium of Madhya Pradesh Statistics, 1980*

(Number)

7. BANKING

Table 7.1 : Bank offices, deposits and credit of scheduled commercial banks in Madhya Pradesh : 1969 to 1980

Year (December-end)	Number of bank offices				Deposits (Rs. crores)	Credit (Rs. crores)	Credit-deposit ratio (Per cent)
	Rural	Semi-urban	Urban/ metropolitan	Total			
1969	94	166	101	361	126.38	70.52	55.8
1970	226	185	115	526	151.85	95.43	62.8
1971	282	211	141	634	179.85	103.00	57.3
1972	304	236	185	724	221.82	115.43	52.0
1973	334	258	210	802	272.60	144.44	53.0
1974	360	289	233	882	315.66	196.41	62.2
1975	400	328	271	999	394.17	197.17	50.0
1976	470	384	322	1,176	531.80	270.16	50.8
1977	624	398	351	1,373	634.74	347.62	54.8
1978	795	416	367	1,578	791.64	431.12	54.5
1979	953	440	376	1,769	976.70	508.40	52.0
1980	...	...	...	1,842	1,172.41	653.22	55.7

(...) = Not available

SOURCE: Reserve Bank of India, *Statistical Tables Relating to Banks in India* (various issues)

Table 7.2: Occupation-wise classification of outstanding credit of scheduled commercial banks in Madhya Pradesh: June-end 1980

Occupation	Number of accounts	Amount outstanding	
		Rs. lakhs	Per cent to total
I. Agriculture	3,88,428	14,330.7	26.3
1. Direct Finance	3,73,891	12,620.1	23.2
2. Indirect Finance	14,537	1,710.6	3.1
II. Industry	34,332	23,433.0	43.1
1. Mining and Quarrying	354	308.7	0.6
2. Food Manufacturing and Processing	2,063	2,179.0	4.0
a) Rice Mills, Flour and Dal Mills	1,266	905.6	1.7
b) Sugar	21	183.1	0.3
c) Edible Oils and Vanaspati	476	656.5	1.2
d) Tea Processing	1	0.1	—
e) Others	299	433.7	0.8
3. Beverage and Tobacco	204	336.3	0.6
4. Textiles	1,026	6,626.3	12.2
a) Cotton Textiles	554	3,660.6	6.7
b) Jute Textiles	14	26.4	—
c) Other Textiles	458	2,939.2	5.5
5. Paper, Paper Products and Printing	694	607.7	1.1
6. Leather and Leather Products	123	398.3	0.7
7. Rubber and Rubber Products	109	114.5	0.2
8. Chemicals and Chemical Products	1,372	2,058.5	3.8
a) Heavy Industrial Chemicals	56	83.0	0.2
b) Fertilisers	80	251.2	0.5
c) Drugs and Pharmaceuticals	328	711.3	1.3
d) Others	908	1,013.0	1.8
9. Manufacture of Basic Minerals	88	91.1	0.2
10. Cement	176	142.8	0.3
11. Basic Metals and Metal Products	1,293	3,172.9	5.8
a) Iron and Steel	404	1,684.1	3.1
b) Others	889	1,488.9	2.7
12. Engineering	1,147	3,576.2	6.5
a) Heavy Engineering	140	919.7	1.7
b) Light Engineering	675	624.5	1.1
c) Others	332	2,032.0	3.7
13. Vehicles, Vehicle Parts and Transport Equipment	375	683.4	1.3
14. Electricity Generation, Transmission and Distribution	28	700.0	1.3
15. Construction	550	489.3	0.9
16. Others	24,730	1,947.9	3.6
III. Transport Operators	17,710	3,950.2	7.3
IV. Personal and Professional Services	60,482	1,285.7	2.4
1. Professional Services	6,581	279.3	0.5
2. Artisans and Craftsmen	19,071	208.6	0.4
3. Other Services	34,830	797.8	1.5
V. Trade	1,01,463	6,399.3	11.8
1. Wholesale Trade	7,862	2,919.9	5.4
2. Retail Trade	93,601	3,479.4	6.4
VI. Personal Loans (including consumer durables)	64,018	2,193.7	4.0
VII. All others	1,01,129	2,804.9	5.1
Total Credit	7,67,562	54,397.4	100.0
Of which: Small-scale industry	28,797	7,296.1	13.4

SOURCE: Reserve Bank of India, Credit Planning Cell, *Banking Statistics, Basic Statistical Returns, Summary Results, June 1980, August 31, 1981*

Table 7.3: Districtwise bank offices in Madhya Pradesh: 1969, 1971 and 1981

District	1969 (July 19)		1971 (June 30)		1981 (June 30)	
	Number	Per lakh of population	Number	Per lakh of population	Number	Per lakh of population
Balaghat	4	0.4	6	0.6	45	4.1
Bastar	4	0.3	13	0.9	64	3.6
Betual	5	0.7	9	1.3	33	3.3
Bhind	4	0.5	8	1.0	24	2.4
Bhopal	(a)	(a)	(a)	(a)	84	9.3
Bilaspur	12	0.5	19	0.8	114	3.8
Chhatarpur	3	0.4	10	1.4	51	5.7
Chhindwara	6	0.6	14	1.4	54	4.5
Damoh	2	0.3	6	1.0	22	3.1
Datia	2	0.7	3	1.0	14	4.7
Dewas	7	1.2	10	1.7	32	4.0
Dhar	4	0.5	10	1.3	46	4.2
Durg	20	0.6	27	0.8	63	3.3
East Nimar (Khandwa)	13	1.4	17	1.9	54	4.5
Guna	5	0.6	8	1.0	29	2.9
Gwalior	16	1.8	23	2.6	66	6.0
Hoshangabad	11	1.4	16	2.0	66	6.6
Indore	41	4.1	52	5.2	127	9.1
Jabalpur	19	1.1	32	1.9	113	5.1
Jhabua	2	0.3	7	1.0	28	3.5
Mandla	4	0.4	5	0.6	30	3.0
Mandsaur	9	0.9	22	2.2	52	4.0
Morena	5	0.5	9	0.9	39	3.0
Narsimhapur	4	0.8	6	1.2	25	4.2
Panna	2	0.5	6	1.5	14	2.8
Raigarh	7	0.5	10	0.8	30	2.1
Raipur	18	0.7	31	1.2	116	3.7
Raisen	5	0.8	12	2.0	40	5.7
Rajgarh	4	0.7	6	1.0	24	3.0
Rajnandgaon	(b)	(b)	(b)	(b)	29	2.4
Ratlam	10	1.7	14	2.3	42	5.3
Rewa	6	0.6	9	0.9	62	5.2
Sagar	9	0.8	16	1.5	49	3.8
Satna	3	0.3	7	0.8	52	4.3
Sehore	24	1.4	37	2.2	25	3.6
Seoni	2	0.3	4	0.6	27	3.4
Shahdol	5	0.5	9	0.9	36	2.8
Shajapur	4	0.6	7	1.0	29	3.6
Shivpuri	3	0.4	6	0.9	22	2.4
Sidhi	1	0.1	3	0.4	42	4.2
Surguja	5	0.4	8	0.6	73	4.6
Tikamgarh	2	0.3	4	0.7	41	5.9
Ujjain	17	1.9	20	2.2	65	5.9
Vidisha	5	0.7	7	1.0	28	3.5
West Nimar (Khargone)	10	0.8	17	1.3	56	3.5
Madhya Pradesh	344	0.8	566	1.4	2,177	4.2

Notes: (a) Included in Sehore district
(b) Included in Durg district

SOURCE: Communication from Directorate of Economics and Statistics, Government of Madhya Pradesh, Bhopal

Table 7.4: Districtwise distribution of deposits and credit of scheduled commercial banks according to population group in Madhya Pradesh: June-end 1980

District	Number of bank offices	Deposits (Rs lakhs)				Credit (Rs lakhs)			
		Rural	Semi-urban	Urban	Total	Rural	Semi-urban	Urban	Total
Balaghat	28	342	494	—	836	167	179	—	346
Bastar	45	650	630	—	1,280	187	229	—	416
Betul	26	275	737	—	1,012	85	180	—	265
Bhind	20	268	693	—	961	138	210	—	348
Bhopal	79	184	—	12,404	12,588	251	—	5,673	5,924
Bilaspur	94	1,027	1,579	1,798	4,404	360	529	730	1,629
Chhatarpur	47	343	616	—	959	287	247	—	534
Chhindwara	49	884	981	—	1,865	291	439	—	730
Damoh	18	75	549	—	624	47	236	—	283
Datia	13	118	278	—	396	92	253	—	345
Dewas	31	407	627	—	1,034	666	906	—	1,572
Dhar	40	456	459	—	915	441	173	—	614
Durg	55	459	848	3,314	4,621	281	409	1,257	1,947
East Nimar (Khandwa)	48	308	1,000	819	2,127	243	504	596	1,343
Guna	24	180	725	—	905	134	367	—	501
Gwalior	58	145	354	7,999	8,498	52	147	4,049	4,248
Hoshangabad	63	441	1,950	—	2,391	376	1,067	—	1,443
Indore	121	565	899	12,880	14,344	418	203	8,485	9,106
Jabalpur	106	368	1,417	10,158	11,943	273	453	3,334	4,060
Jhabua	21	258	252	—	510	225	119	—	344
Mandla	27	174	483	—	657	110	98	—	208
Mandsaur	43	378	1,520	—	1,898	407	704	—	1,111
Morena	29	184	937	—	1,121	147	635	—	782
Narsimhapur	22	75	765	—	840	45	536	—	581
Panna	13	117	281	—	398	65	116	—	181
Raigarh	26	648	477	—	1,125	230	286	—	516
Raipur	96	658	810	4,139	5,607	478	362	1,841	2,681
Raisen	39	429	161	—	590	382	127	—	509
Rajgarh	23	151	353	—	504	238	228	—	466
Rajnandgaon	27	125	766	—	891	93	510	—	603
Ratlam	31	134	276	1,597	2,007	58	348	957	1,363
Rewa	55	461	1,114	—	1,575	309	416	—	725
Sagar	44	328	566	1,745	2,639	178	297	539	1,014
Satna	40	314	1,279	—	1,593	296	698	—	994
Sehore	24	391	455	—	846	349	314	—	663
Seoni	20	207	446	—	653	70	137	—	207
Shahdol	30	879	684	—	1,563	220	129	—	349
Shajapur	24	164	454	—	618	155	216	—	371
Shivpuri	20	227	481	—	708	109	199	—	308
Sidhi	36	694	—	—	694	324	—	—	324
Surguja	42	984	673	—	1,657	171	182	—	353
Tikamgarh	33	220	315	—	535	216	138	—	354
Ujjain	57	115	901	3,088	4,104	134	955	2,376	3,465
Vidisha	26	116	786	—	902	157	805	—	962
West Nimar (Khargone)	45	357	1,019	—	1,376	200	482	—	682
Madhya Pradesh	1,858	16,283	31,090	59,941	1,07,314	10,155	15,778	29,837	55,770

Notes: Rural = Population up to 10,000.

Semi-Urban = Population over 10,000 and up to 1,00,000.

Urban = Population over 1,00,000 and up to 10,00,000.

SOURCE: Reserve Bank of India, Credit Planning Cell, *Banking Statistics, Basic Statistical Returns, Summary Results, June 1980, August 31, 1981*

8. AGRICULTURAL MARKETING

**Table 8.1 : Districtwise principal regulated markets
for agricultural produce in Madhya Pradesh
1965-66 and 1981-82**

(Number)

District	1965-66	1981-82
Balaghat	N.A.	7
Bastar	5	8
Betul	N.A.	2
Bhind	5	6
Bhopal	1	2
Bilaspur	N.A.	12
Chhatarpur	N.A.	5
Chhindwara	2	2
Damoh	1	2
Datia	2	2
Dewas	6	6
Dhar	6	6
Durg	N.A.	3
East Nimar (Khandwa)	3	3
Guna	8	11
Gwalior	4	3
Hoshangabad	1	7
Indore	3	4
Jabalpur	N.A.	4
Jhabua	3	4
Mandla	N.A.	6
Mandsaur	8	8
Morena	8	9
Narsimhapur	1	4
Panna	1	3
Raigarh	N.A.	6
Raipur	11	15
Raisen	1	5
Rajgarh	8	10
Rajnandgaon	N.A.	5
Ratlam	4	5
Rewa	N.A.	4
Sagar	4	5
Satna	1	4
Sehore	1	5
Seoni	N.A.	5
Shahdol	N.A.	7
Shajapur	9	9
Shivpuri	4	8
Sidhi	N.A.	1
Surguja	N.A.	5
Tikamgarh	1	3
Ujjain	6	7
Vidisha	6	7
West Nimar (Khargone)	8	11
Madhya Pradesh	132	256

Note: NA = Note available

SOURCE: Communication from: (i) Directorate of Mandis, Government of Madhya Pradesh, Bhopal and (ii) Directorate of Economics and Statistics, Government of Madhya Pradesh, Bhopal

**Table 8.2: Districtwise cold storages in Madhya Pradesh
(As on December 31, 1981)**

District	Number of cold storages	Capacity	
		Cubic metres	As per cent of total capacity
Betul	1	1,638	0.4
Bhind	3	17,885	4.7
Bhopal	7	24,644	6.5
Bilaspur	6	23,400	6.2
Chhindwara	6	15,111	4.0
Damoh	1	1,598	0.4
Dewas	2	9,097	2.4
Dhar	1	17,452	4.6
Durg	4	9,607	2.5
Gwalior	8	15,258	4.0
Indore	18	1,30,679	34.4
Jabalpur	6	10,077	2.6
Morena	1	1,902	0.5
Raipur	10	34,812	9.2
Rewa	2	7,204	1.9
Sagar	4	13,855	3.6
Satna	3	12,425	3.2
Sehore	1	6,615	1.7
Shahdol	1	1,360	0.4
Surguja	2	9,493	2.5
Tikamgarh	2	13,884	3.7
Ujjain	1	2,250	0.6
Madhya Pradesh	90	3,80,246	100.0

SOURCE: Government of India, Ministry of Rural Reconstruction, Directorate of Marketing and Inspection, *Directory of Cold Storages in India 1980, 1981 and Supplement up to December 1981*

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Supplement to Commerce
VOL. 145 No. 3720 Bombay, September 25, 1982

Exterior view of the industrial training institute, Bhopal



Sarni thermal power station



Digging a tubewell in village, Shahpur



ERS

"Poor prospects for poor world"

SIR,—Kudos for your topical and analytical lead article 'Poor Prospects for the Poor World' in *Commerce* dated August 28, 1982. As a matter of fact the industrialised nations will never loosen their iron-grip on the natural resources located in developing nations. The only alternative left before the latter is to pool all their resources—manpower, technical, machinery and financial—together and chalk out a pragmatic and time-bound plan for the economic development of each and every developing nation. Eighties will not bring any relief if one still hopes against the hope that advanced capitalist nations—the USA, West Germany, Japan and France in particular—would share their technical knowledge or material resources with the developing nations to usher in a more just and humane international economic order.

The Cancun summit has shattered the myth that advanced capitalist nations could be convinced of the desirability of greater economic cooperation among the nations with different social systems for the benefit of all concerned through negotiations. The rigid stand taken by the US President Reagan has dashed all hopes of future US participation in the economic development of developing nations.

But all is not lost for the poor. The first imperative for the welfare of the South demands concerted action to stop the export of industrial raw materials and oil to the industrially advanced nations of the West. Secondly, the technology developed by the socialist community, aided by the self-made super-power the USSR, is sufficient to meet the immediate development as well as future requirements of South.

Recent US-backed aggression of Lebanon has proved to the Arab world that Israel is acting at the behest of the dollar-gods in Washington. So, petro-dollars could be channelised towards agricultural, industrial and economic progress in the developing nations. Economy in the eighties would show upward trend in the socialist countries and non-aligned ones in Asia, Africa and Latin America but nose-dive in western states. Economy is now polycentric. It is no more governed from Washington, Bonn and least of all from bankrupt London. The earlier the economic planners in developing nations recognise this reality, the better would it be for their own peoples.

Devindra Singh Kanwar
SIK

A deathblow to newspapers

SIR,—It appears the days of the newspaper industry in the country are numbered. A proposal under consideration of the Centre threatens to put the final nail on the fate of this industry. The proposal relates to the allocation of imported newsprint and seeks to give the state governments a determining role in the allocation of newsprint. The state governments, which already have powers to twist the arms of newspapers by publishing news unpalatable to them by denying government advertisements to them on some pretext or other, will get a new lever in their hands.

Asant Nadkarni,
MUMBAI

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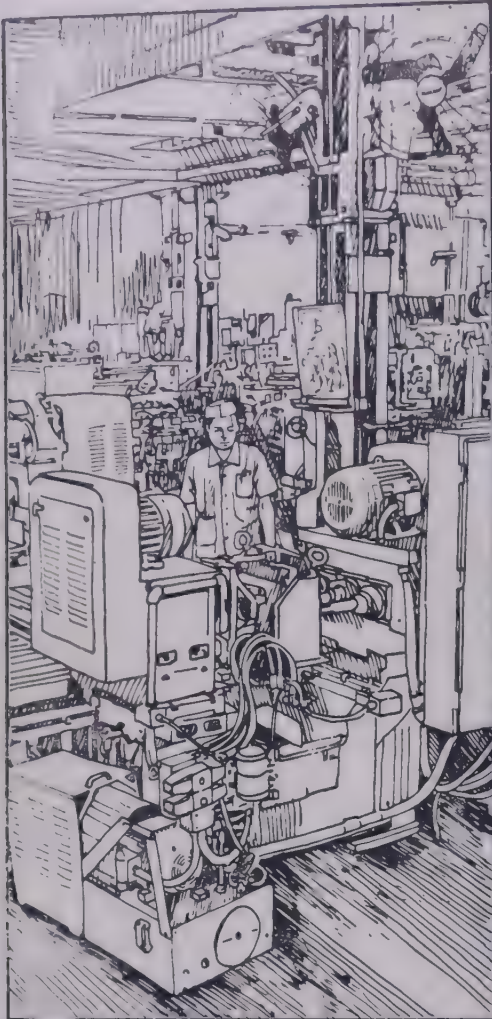
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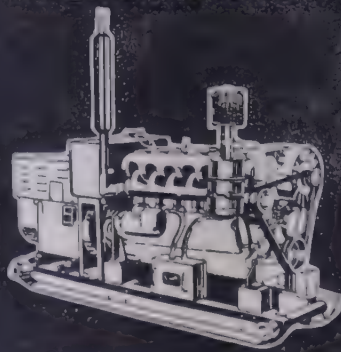
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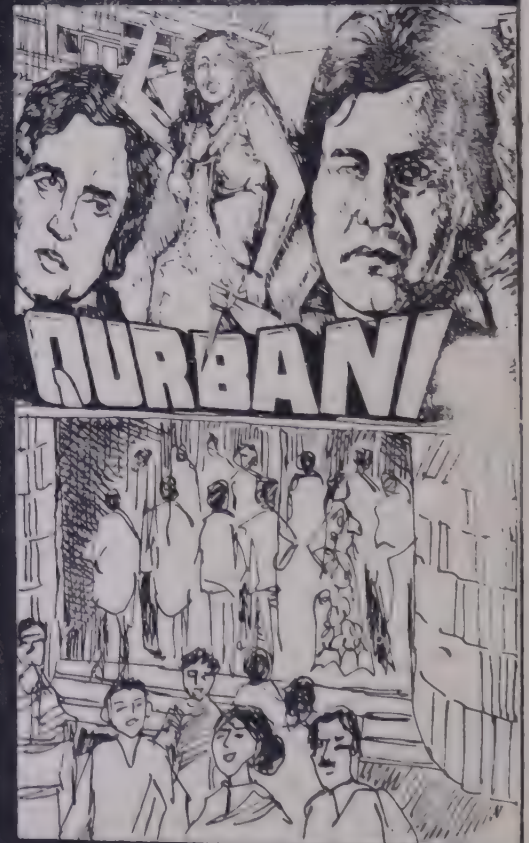


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In hospitals power failure could prove fatal



Lay theatres open to destruction by irate audiences

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COMMERCE

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PEOPLE



Singh



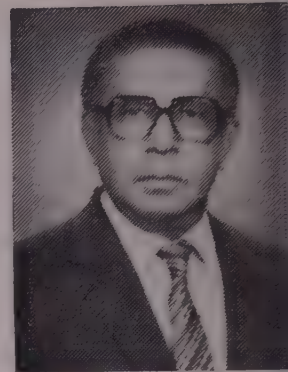
Kothary



Kasliwal



Menda



Majumder

Mr Premjit Singh has been appointed executive director of Central Bank of India from September 20, 1982. Mr Singh started his career in the Reserve Bank of India. From there he moved to Industrial Development Bank of India subsequently was on deputation to the Union Bank, where he held the position of regional manager. He was also the general manager of Lakshmi Commercial Bank Ltd for two years. Mr Singh joined the Central Bank in 1976 as deputy general manager and was promoted general manager in 1978 which post he held till recently.

Mr Bhogilal (Manubhai) N. Kothary, who has been re-elected chairman of the Silk and Rayon Textiles Export Promotion Council, is the chairman of Rayex (India) Ltd. He is also vice-president of SASMIRA and associated with many other industry and trade bodies.

Mr Abhaykumar Kasliwal, who is re-elected vice-chairman of the Silk and Rayon Textiles Export Promotion Council,

is a well-known name in the textiles and heads the S. K. group of companies. He is also president of the Maharashtra Chamber of Commerce and a committee member of the Federation of Indian Chambers of Commerce and Industry.

Dr R. K. Menda, a renowned surgeon of Bombay, has been appointed vice-chairman of Ador Travels Private Ltd.

Mr H. S. Majumder, deputy managing director of SBI, has retired. He was looking after industry finance, merchant banking and international banking divisions. In earlier years, Mr Majumder was the London branch manager of SBI.

Mr J. K. Mukherjee of Calcutta Iron Merchants Association has been elected president of the Federation of Iron and Steel Trade Associations of India. Messrs P. T. Shah, Madan Mohan Jain, Syed Masood, Prem Kaushik, and V. K. Jain were elected zonal vice-presidents, respectively, for the western, northern, southern, central and east central zones.

THE WEEK

The World Bank will give a \$ 398 million loan to the Indian Railways for installing a diesel components plant at Patiala. ★

India has signed a protocol with the Soviet Union to set up a steel plant in Orissa. ★

American Express International Banking Corporation has offered to raise funds in the US market at very competitive rates to finance India's entire crude oil imports. ★

International tenders have been invited for constructing port facilities at Nhava Sheva port project. About 200 foreign companies are reported to have evinced interest. ★

The Union Government has announced the location of five new fertiliser plants based on Bombay High gas—one in Madhya Pradesh and four in Uttar Pradesh. ★

The Union Government has increased the export duty on coffee from Rs 190 to Rs 300 per quintal with immediate effect. ★

A 100 per cent power cut has been imposed on all high and low tension power industries in Gujarat. ★

The Industrial Disputes Act and the Trade Union Act will be amended further. ★

Canada is willing to assist India with a loan of about Rs 300 crores for the execution of the Chamara hydroelectric project in Himachal Pradesh.

The World Bank has agreed to give a Rs 60 crore loan for the Taltuj Yamuna link canal project which will carry the surplus Ravi Beas water to Haryana.

Britain has offered new grant aid to India of 100 million pound sterling for the railway and power projects.

The Reserve Bank of India has instructed scheduled commercial banks not to insist on guarantee from state governments against loans given for public sector projects, unless "absolutely warranted".

Wholesale price index

At 292.0, the latest available wholesale price index for all commodities for the week ended September 4, 1982 showed a fall of 0.7 per cent over the week before. However, at this level the index showed a rise of 1.2 per cent over the year.

Money comfortable

Conditions in the Bombay short-term money market were comfortable as of Monday (September 20, 1982). In the inter-bank call money section both notified and commercial funds were renewed at 4.25 per cent. Fresh money was transacted at 4.25 per cent. The market closed at 4.25 per cent.

Widening areas of Indo-Soviet cooperation

NY doubts that the Soviet leaders may have entertained that India was tilting in recent days towards the West have been obviously cleared by the Prime Minister, Mrs Indira Gandhi, during her talks with the Soviet President, Mr Leonid Brezhnev, the Prime Minister, Mr Nikolai Tikhonov, and other members of the Soviet government. Mrs Gandhi told a press conference in Moscow that her talks with the Soviet leaders had taken Indo-Soviet cooperation a decisive step forward and she emphasised the role of India as a leader of the non-aligned movement. There were some suggestions in the western press that Mrs Gandhi's Washington visit for talks with President Reagan, preceding as it did the Moscow visit, and India's purchases of arms and military equipment from some western countries indicated that she wanted to move away from the Soviet Union. These political observers will be disappointed.

The joint declaration, signed by Mrs Gandhi and Mr Brezhnev, according to press reports, covers a wide area like disarmament and detente, the developments in the West Asia and increasing militarisation of the Indian Ocean. Of course, there are different perceptions on some of the issues and Mrs Gandhi did well to reiterate India's stand that the Soviet troops should withdraw from Afghanistan. As she said, India is against any type of interference by one country in another's affairs. Mrs Gandhi also did well not to accept President Brezhnev's contention that Pakistan's offer for a no-war pact was only a cover to seek more and more arms from the United States and other countries. While in India, she said, was taking all necessary steps to meet the situation posed by flow of sophisticated arms into Pakistan, she had no intention to overreact and would persevere in her endeavour to improve bilateral relations. She also made the same point in regard to China with which this country was seeking to improve her relations, certainly not at the cost of Indo-Soviet friendship which has stood the test of time. Friendship with the countries is the cornerstone of a policy of peace which India subscribes wholeheartedly. If this policy adopted by all the major powers, the tension all around the world will lessen.

Significant as the identity of views is on global issues, the more significant point is, as Mrs Gandhi put it, the emergence of a wider area of economic cooperation between the two countries. The agreement on the Bokaro steel plant in 1955 marked the beginning of this economic cooperation between the two countries. Since then in the last 27 years it has spread to diverse branches

of the national economy such as ferrous and non-ferrous metallurgy, oil refining, coal mining, power engineering, machine building, instrument making and agriculture. More than 50 projects have been built with Soviet assistance and some 20 more are under way. It has been estimated that factories and plants built with the Soviet assistance today produced more than 40 per cent of the country's steel, sizable percentage of oil, a large portion of heavy metallurgical and power engineering equipment and about 20 per cent of electricity. Economic assistance extended by the Soviet Union to these projects has been estimated at 1,995 million roubles (Rs 19,950 crores). Indo-Soviet trade has also grown manifold to over Rs. 2,100 crores and it is expected to grow still further. During the current visit of Mrs Gandhi, negotiations were broadly held for further expansion of economic cooperation. The programme to be finalised by the two co-chairmen of the Indo-Soviet joint commission before Mrs Gandhi returned to New Delhi was expected to yield a package of fresh agreements covering ferrous and non-ferrous metallurgy, coal and oil, machine building and power as well as production cooperation.

On the eve of Mrs Gandhi's visit, it was reported that the Soviet Union was planning to import an additional 500 million metres of cloth a year. She buys already about 125 million metres of cloth annually from this country. The agreement when finalised, would give a big boost to our cotton textile industry as well as the textile machinery manufacturing industry since the Soviets are insisting that the new equipment needed for developing the cotton textile industry must be indigenous or, if imported, it should be from the Soviet Union. India would obviously prefer to encourage her own textile machinery manufacturers than those of the Soviet Union. Mrs Gandhi has also revealed that the Soviet Union has made an offer of setting up a 1,000 mw nuclear plant in the country. Obviously, India will have to think twice before the offer is accepted. First, the technological capability of running 1,000 mw units has not yet been developed in this country. The Atomic Energy Commission had standardised the units being put up in our nuclear power plants at 220 mw and it is only now that it is seeking to develop technology for 500 mw units. Secondly, the Soviet Union like the French, will seek to insist on the latest International Atomic Energy Association safeguards which will mean acceptance of the 'pursuit' and perpetuity principles which New Delhi has refused to accept in the case of France.

While Mrs Gandhi's visit has contributed to a greater economic cooperation to the advantage of the two

countries, it must be recorded that there seems to be considerable scope for improving the implementation of the understanding reached between the Indian and the Soviet leaders. No doubt implementation of international agreements takes time because the countries will have to co-ordinate their efforts to achieve the best results. Nevertheless, unless speedy implementation is there, there is a real danger of many agreements losing their value in public estimation. For example, the earlier understanding regarding Indo-Soviet joint ventures in third countries has remained largely un-

implemented. It is not known what has held up the joint ventures. Conceivably the problems of the two countries always could be a factor. But then the public ought to know at least in the broadest outline why there has been delay. That may be made known by presenting an annual report jointly by the Government of India and the Soviet Union on the progress of the implementation of the understanding or agreements. In fact, the Government of India should take the public into confidence on the question of implementation of agreements reached with all the advanced countries.

Enemies of stock exchange

THE ferment in the Bombay Stock Exchange has been going on for more than a year now. It comes to the fore in different forms on different occasions. The situation has become so bad that there is no surprise any more if trading is suspended on the exchange. Either the authorities themselves suspend trading or the brokers bring this about one way or the other which the authorities are not able to control. The laxity of the governing board of the Bombay Stock Exchange was glaringly exposed when it was found that a defaulter broker had been carrying on trading on the exchange through proxy. The highly embarrassed board sought to retrieve its prestige and credibility by issuing a circular asking member brokers not to deal with, or transact any business on behalf of, defaulting members, without their prior approval. The brokers have been warned that if any broker is found dealing with the defaulting members even as a client that member will be penalised according to the bye-laws of the stock exchange. If this warning is seriously meant then the phrase "without prior approval" makes no sense. Why should the governing board approve of dealings with a person whom it itself has described as a defaulter? There ought to be no scope for the stock exchange authorities to accord prior, or *ex post facto*, sanction to dealings with defaulters. The very fact that a defaulter could operate on the exchange so soon after he was ostracized exposed the laxity of the supervision of the governing board as it underscored the presence of persons without any moral scruples within the community of brokers.

The ways of the Bombay stock brokers are difficult to understand. They seem to be incapable of exercising any self-discipline, which alone can sustain an organisation like the stock exchange. It is this lack of self-discipline that leads them to trade with, or on behalf of, a defaulter—which completely negates the import of the declaration of a member as a defaulter. The brokers are also not amenable to following any disciplined course set by the governing board, as became very apparent when they struck work on September 15 to protest against the imposition of margins on six leading scrips. The imposition of margins had come in the wake of continued

instability on the stock exchange on account of the brokers either not being able to deliver shares which they had sold or not being able to pay the price for the shares they had bought—which had brought about a large loss of credibility in the working of the stock exchange. The brokers ought to have welcomed the imposition of margins in this context. That would be the reasonable reaction. However the reasoning that seems to govern the conduct of the brokers on the Bombay Stock Exchange is far away from reasonableness.

The conduct of the governing board of the Bombay Stock Exchange is even less understandable. It cannot see a crisis when it is coming: it cannot deal with a crisis when it arrives. And whatever half-hearted measures of control it sometimes adopts to stem the tide of public criticism it has no qualms in abandoning even them when it faces the slightest opposition from the brokers. Having imposed daily margins on six scrips on September 13 the governing board did not give the measure a trial for even a day inasmuch as on September 15, it was reported to have given an assurance to the brokers that these daily margins would not be charged on September 16 and 17 (although the brokers would have the daily margins as per an earlier list). By September 20 the daily margins were off for all practical purposes although the margins were retained as a formality perhaps for propaganda purposes. According to the modification of the margin orders on September 20, there would be a free limit of Rs 5 lakhs for each member (broker) for the purpose of imposing daily margins on the shares concerned. A further modification—also for propaganda purposes—was the inclusion of all scrips (and not only six scrips as earlier) within the purview of the margin orders. As it has been pointed out by an observer of the operations of the Bombay Stock Exchange, the free limit has been carefully fixed at a level where no broker on the exchange would ever be called upon to pay a margin either on the purchase or on the sale of shares.

The public anxiety over the working of the Bombay Stock Exchange found its echo in the remarks made by Mr N. A. Palkhivala, while inaugurating a seminar on stock exchanges organised by the All India Manufactur-

organisation (AIMO) in Bombay earlier this month. He said that if further governmental control of the functioning of the stock exchanges had to be averted the only way on stock exchanges would have to be informed by much more self-regulation. The rules governing trading in shares, Mr Palkhivala pointed out, were being controlled by the stock brokers which had brought about fewer than 20 crises on the stock market during the last two years. Overspeculation in shares should be punishable under law, he said, and persons involved should be severely punished. But the irony of the situation was that the stock exchange itself was the one being used, the prosecutor and the judge in many cases. He wanted the governing boards of the stock exchanges to be broadened to include, besides brokers who now dominate the boards, representatives of private sector

companies, financial institutions, the finance ministry and common shareholders—a suggestion made in this column much earlier. This is a suggestion in the right direction although even this by itself may not always ensure a fair functioning of the stock exchanges, as the recent allegation of insider trading against a Bombay shipping company implied. Care will have to be taken to see that there is no collusion between the representatives of brokers and private sector companies to rig the trading in the scrips of certain companies either to inflate their prices or to deflate their prices artificially. Mr Palkhivala's suggestion that every stock exchange should be provided with a computer to record every transaction is highly relevant to check malpractices by brokers.

Do not throw away baby with bathwater

THE Gavai Committee's broad finding about the prevailing malpractices in the administration of the Maharashtra Government's prestigious Employment Guarantee Scheme (EGS) serves as a grim reminder of how the deep-rooted corruption in administration is likely to vitiate the effectiveness of even the most well-conceived measure of economic welfare. The **World Development Report: 1982**, recently released by the World Bank, took note of the scheme and was full of praise. The **Report** says, "Over the five years from 1973-74 to 1977-78, Maharashtra's rural unemployment declined by 17 per cent, from 1.4 million persons to 1.1 million, despite a 17 per cent increase in the population. Its rural unemployment rate fell by 32 per cent during the same period to 5.2 per cent of the work force, compared with a 4 per cent overall decrease for the whole country. Because agricultural and industrial growth remained sluggish, much of the improvement in Maharashtra's employment can be attributed to EGS." The committee, headed by the Government of Maharashtra under the chairmanship of Mr R. S. Gavai, the then Chairman of the Maharashtra Legislative Council, included three Congress (I) legislators and one legislator from another party and an under-secretary of the State Planning Department.

The committee found that there had been misappropriation of wages to the tune of Rs. 10.90 lakhs in 1977-78. The committee criticised the transfer of Mr Arun Bhatia, collector of Dhule, to another district despite a written request by Mr Gavai. The committee also criticised the action of the superintendent of police of Dhule District in asking all police stations under his jurisdiction to record complaints of corruption in the EGS without prior permission. The panel regretted that the police had actively created obstacles in the path of Mr Bhatia in his efforts to eradicate corruption. The committee reported that the transfer of 65 officials recommended by the district collector had been done in the most

lackadaisical manner spreading over a period of one to eight months.

The state government thus comes out in a very bad light. Its position was further compounded by the enthusiasm displayed by Dr Shrikant Jichkar, the Minister of State in the Home Department, to play down the depth of corruption, instead of providing any explanation for the strange behaviour of the police in Dhule. It is not for a minister to enter into any discussion on the extent of corruption but to keep the department free from this administrative disease. While the district collector of Dhule, Mr Arun Bhatia, placed the misappropriation of funds in the district at Rs 86 lakhs on the basis of sample checking, the committee's estimate for the same was much lower.

To describe at length the widespread corruption is not to suggest that the EGS in itself is bad. The baby ought not to be thrown out with the bathwater. The danger of such a course being taken is real. The Employment Guarantee Scheme is highly worthwhile and serves a dual purpose. Apart from providing employment to the unemployed or the underemployed rural workers in public works projects, it also creates productive assets for the society. Ever since the scheme was started in 1972-73, the state government has spent more than Rs 450 crores—Rs 405 crores paid as wages in cash and Rs 46 crores in kind—till the end of 1980-81. As many as 958 million mandays of employment were generated during the nine-year period. On an average, five lakh workers are employed every day under the EGS throughout Maharashtra. Success of the scheme could be measured from the fact that ever since its introduction not a single case was reported when the state government had to pay the unemployment dole (rupee one per day per worker) which the government undertook to pay to anyone who could not get an unskilled job in the rural areas. This is a creditable achievement indeed, which deserves emulation on a wider scale minus, of course, the corruption

LETTER FROM LONDON

Who caused western banking crisis?

From STEPHEN HUGH-JONES

LONDON

AFTER Mexico, who? That was the question bankers were asking themselves as they returned from the IMF meeting at Toronto.

They didn't have long to wait. Within days, Bolivia had declared itself unable to pay some, admittedly small, interest payments due.

The fear of a major banking crisis has not been significantly lessened by what was said at Toronto. The prospect is that the IMF will get a rather larger increase in quotas than the US would have liked, and rather sooner—decision day is officially brought forward from the end of next year to the end of April. Equally, Mexico has been given a breathing space by central banks' readiness to put up almost \$2 billion of short-term finance. But the long-term problems remain.

The largest of these, though complex in detail, is simple enough in practice. It is not just that some countries overborrowed, spent foolishly, and can't pay up. It is that, however hard they try, however zealously they may obey the IMF dictum of austerity, they still won't be able to pay.

The bankers are alarmed that Mexico seems unwilling—and Argentina will pretty certainly follow in its footsteps—to obey the tough conditions that the IMF and others think should accompany any bail-out.

But these countries can reasonably feel that, even if they accepted (and the price in domestic politics would be heavy), the desired result might well not be achieved.

Mexico cannot raise the price of oil, or Argentina that of grain or meat, any more than can the countries that produce copper, coffee, sugar or other raw material exports.

The debt crisis has arisen initially from a combination of over-optimism in Third World countries, and under-caution in lending ones. But given those initial errors, it is plain where the trouble now

lies. Not in Third World follies but in rich-world recession.

For many Third World countries there is no prospect whatever of earning the foreign exchange to service their debts until commodity prices look up—and that means until the world economy does so.

The rich countries have been obsessed with fighting inflation. Not without reason, but at a heavy price in domestic unemployment. Britain, under the doctrinaire mismanagement of Sir Geoffrey Howe, has been the prime example, but not alone. And others have now found that they cannot stand alone as an island of activity in a world of slump.

France was the prime (indeed almost the only) example of a country seeking to follow this course, under the Mitterrand regime elected in 1981. Now it too has found it must swim with the tide.

Till now, the rich accepted the domestic price. But now they see that it was not only one of domestic unemployment. They have thrown the whole world into recession—and its recession is in turn rebounding on their own banking systems.

There is one imaginable, if difficult, way out: a determined effort at world deflation, in which the commodity producers would share, and, ultimately, be better able to service their debt.

But the rich are still obsessed with their own inflation, as the Toronto

climate showed. They still fear that a collective effort to increase demand will merely end in collective rises in prices rather than jobs.

At best, they rely on falling interest rates to do the job for them: a dubious proposition, though no doubt they claim it proved when the upturn eventually arrives. In the short term it is little comfort to the debtor countries though it is true that they too benefit if interest rates fall.

The other remedy for the banking crisis is much easier to take: just clamp down on new lending. Having been rash in the past, the bankers tend to be cautious, and quite probably too cautious, in future, unless fresh lending is the only way to stave off default.

For the commercial bankers, this solution makes a good deal of sense. In much of the Third World, it makes a cautious little. Having had commercial banks almost rammed down their throats during the easy years, poor countries, those that are creditworthy, will find money unduly hard to come by.

For the poorest countries this is a great problem. They have had private sector capital anyway. Middle-rank countries may feel a pinch. And there is little prospect that public sector capital will be available in quantities large enough to make up the difference.

The western world is only just waking up to this, the long-term significance of its banking worries. A real banking crash is unlikely, though few people would deny it possible. Affairs like that of Italy's private Banco Ambrosiano are peripheral; real trouble will not arise until some major bank is in difficulty and that appears to be far away. For their rashness, the big American banks have far to go before their Latin American lending escapades bring them down.

In contrast, the risk of continued recession and of further compulsory tightening in the Third World, is high indeed.

Debtors in news

	External debt (\$ billion)
<i>Latin America</i>	
Mexico	81
Argentina	40
Peru	10
Costa Rica	3.5
Bolivia	3.5
<i>Asia</i>	
South Korea	33
The Philippines	16
<i>Communist countries</i>	
Poland	27
Romania	10

EDITOR'S NOTEBOOK

Vadilal Dagli

Why subsidise illegal strike?

THE eight-month long strike of the Bombay textile workers under the leadership of Dr Datta Samant, who is heading the recognised trade union, understandably caused great worry to the government. The strike has an im- going far beyond the textile workers textile industry, or Bombay, or even Maharashtra. Among the reasons that worried the government is the in- ument of the mills in Bombay run by the National Textile Corporation, by e of which the government has now come a major owner of textile mils. point is that the government took these mills when they had become omically unviable, just to protect the oloyment of the workers. Sometimes the National Textile Corporation did not wages to the workers at the full rate. rkers understood this because they w that this was a social welfare sure. When the workers in these is also go on strike, is not the govern- ot justified in closing them down for r, shift the machinery to rural areas auction them away to pay the debts of s and release the precious urban land housing the slum dwellers?

The losses suffered by the National tile Corporation have been mounting to astronomically high figures. In 9-80, they were Rs 20 crores, in 0-81 they were Rs 19 crores and in 1-82, the losses soared to Rs 104 res! When one talks about the losses nearly Rs 100 crores by the National tile Corporation, dear reader, you do know that you pay the bill. The tax- ver pays for these losses and naturally a tax-payer one would like to ask why many as 11 mills run by NTC out of mills in the city of Bombay should not ightway close down because workers ve gone on strike. In other words, why ould the government provide employ- nt security to these workers, who in ir wisdom decided to follow Dr ant, despite the fact that their em- yment was kept alive by the funding the losses by the exchequer?

American banks in crisis

AS the crisis in international banking begun? Bolivia, a tin-rich Latin merican country, informed the Bank of merica that it would not be in a posi- n to pay its repayment instalment of 0 million because of delays in the re- pt of certain export proceeds which d disrupted the dollar flow of the coun-

try. The repayment was due on Septem- ber 9 and the Central Bank of Bolivia asked for a 20-day grace period. But this 20-day breathing period was used for asking a moratorium on interest pay- ments. Argentina, which has piled up a total debt of nearly \$ 40 billion, is requir- ed to pay \$ 12 billion within the next four months. Argentina has asked the IMF to provide for a stand-by loan to help it meet its debt payments. So the economic colonialists of the United States in Latin America are in trouble. When the Reagan Administration was opposing the increase in the IMF's lending pool by 100 per cent, American bankers were aghast because these banks had hoped to persuade the IMF to give credit to coun- tries like Mexico and Argentina so that they may not default.

It is now believed that the United States has realised its folly and may agree to an increase in IMF's resources. Mr Peter Kenen, professor of economics at Princeton University, shrewdly summed up the situation when he said: "If some- body had to be in trouble, I am glad it was Mexico first because nothing else would have served to focus America's attention to the problem." In simple words, Professor Kenen was suggesting that the United States would be most willing to help solve the Mexican crisis because many large American banks were heavily involved in Mexico's debt to in- ternational banking system. It is not surprising that while opposing the increase in the loanable funds of the IMF, the United States wanted to set up 'a crisis fund' of \$ 25 billion to help countries like Mexico. In other words, President Reagan wants to use the IMF to pull out American banks which had pushed into the hands of Third World countries short- term loans with usurious rates of interest. It is ironical that most of these funds came from the Arab countries whose surpluses were deposited in American banks who, in turn, lent it to the Third World countries.

Controls in Pakistan

THE Government of Pakistan has re- cently set up a high power com- mittee to review the existing economic controls. The well-known Pakistani eco- nomist, Dr Mahbubul Haq, Deputy Chairman of the Planning Commission, will be the chairman of the committee which will review the existing controls and regulations and suggest a plan of action to dismantle speedily the unneces-

sary controls and liberate the economic system by doing away with the strangu- lating regulations. According to the terms of reference, the committee will also sug- gest a regulatory framework which encour- ages fair competition, stimulates creative enterprise and removes those controls and regulations which breed corruption and bribery. It is noteworthy that the Gov- ernment of Pakistan has set up a com- mittee nearly four years after the Govern- ment of India appointed a committee on Controls and Subsidies. The Committee was constituted in February 1978 and it submitted its report in May 1979. The committee's report is with the govern- ment for more than three years now and no decision has been taken on the various recommendations that it made in regard to controls and subsidies.

Kishore Parekh

I N the sudden death of Kishore Parekh at a relatively young age of 52 at Hemkunt in the Himalayas on September 13, 1982, India has lost a photographer-artist of world renown. He died of a mas- sive heart attack. His death was symbolic of his life. He adjusted his camera to take a special view of a Himalayan peak, took a picture, quietly laid down the camera and then turned his face away and died as if to merge with the peace of the Himalayas. His life was a moving pho- tographic film of courageous action in unusual or enchanting situations through- out the world.

Whether it was a war or a na- tural calamity or a serene spot of nature's grandeur, Kishore Parekh was there with his camera. His photographs of Bihar famine created sympathy for the people of that unfortunate state. His coverage of the Bangladesh war was published as a book: *Brutal Birth of Bangladesh*. It instantly received interna- tional recognition. The book was pub- lished both in English and French. His photographs were in fact visual litera- ture. He was in Tashkent when the then Prime Minister Lal Bahadur Shastri died. His was the last picture of Lal Bahadur in Tashkent when he took his silhouette through a glass window from a distance after midnight. Soon after this picture was taken Shastriji died. Kishore Parekh's personality was the personality of a rest- less artist. But he was not just an artist. He knew how to get along in the world and at the same time serve the Muse.

COVER STORY

Private sector in India's power generation

By D. R. PENDSE & J. K. MUKHOPADHYAY

ONE of the few areas in which we do not have two opinions and controversies in our country is the importance of power generation for our progress. Since 1956, in terms of the Industrial Policy Resolution (which is still operative) power generation has been made the exclusive responsibility of the public sector; and the private sector has been largely denied any participation in this industry. But prior to it, and indeed several decades prior even to our independence, the private sector had taken major strides in setting up thermal as well as hydro power generation plants.

The present article will review the role played by the private sector in power generation in the past, examine the legal and organisational aspects of the post-independence policy framework in this respect, compare the performance of the power generation units in the private and the public sectors and round off with some conclusions and suggestions.

Electricity in India's energy system

There are two main categories of the sources of energy. The non-commercial sources include firewood, agricultural wastes, cow dung etc. and account for about 44 per cent of the total consumption of energy in India. The other category, namely, commercial energy includes coal, oil, electricity (including nuclear energy), natural gas, etc. which account for about 56 per cent of total energy consumption.*

Over the decades, the share of non-commercial energy has been declining. From 67.6 per cent in 1953-54 it came down to 43.5 per cent in 1975-76, while that of commercial energy increased proportionately during the same period. Broadly, a similar trend was witnessed also in the developed countries in the earlier years of their develop-

ment. Indeed, in most of the developed countries, the share of non-commercial energy at present is negligible.

In India, among the commercial sources of energy, electricity is today, as in the past three decades, the most preferred one. Its share in the overall commercial energy consumption has progressively increased from 12.6 per cent in 1953-54 to 29.2 per cent in 1980-81.

The pattern of electricity utilisation is given in Table 1:

Table 1: Pattern of electricity utilisation

	1980-81 (Provisional)	1960-61
Domestic	10.6	10.7
Commercial	5.6	6.1
Industrial	60.1	69.4
Agricultural pumping	17.1	6.0
Railway traction	3.0	3.3
Public lighting		1.4
Water works	3.6	3.1
Miscellaneous		....
	100.0	100.0

As would be evident, industry and agriculture between themselves account for more than three-fourths of the total electricity consumption in the country. Industry, however, is the more energy intensive user in the sense that while it contributes 19 per cent to the GDP, it accounts for 60 per cent of the total electricity consumption. On the other hand, agriculture, which contributes as much as 40 per cent to the GDP consumes only 17 per cent of electricity.

The preference for electricity seems to have come to stay. The consumption of electricity has increased at an annual compound rate of 15.8 per cent in the last 20 years and it is generally believed that it would continue to increase at an average annual rate of about 10 per cent, at least for the next 10 years. This, in spite of its peculiar characteristics viz. that it can neither be internationally traded nor can it be

* Energy statistics is a baffling area. It has encountered enormous problems of classification, compilation and international comparisons. We are conscious of these, but do not wish this article to get lost in finer statistical points.

readily stored. A disruption in steady supply of electricity is capable of immediately disturbing functioning of the productive sectors of the economy.

Pioneering role of private sector

In India, as in many of the industrially developed countries of today, the history of the power sector started about 100 years ago mainly through the initiative of the private enterprise. The first thermal electric power station in India belonged to the Calcutta Electric Supply Corporation. It commenced supply as early as in 1899. It was followed in 1905 by the Bombay Electric Supply and Tramways Co, and in 1906 by the Kanpur Electric Supply Corporation and the Madras Electric Supply Corporation. Other installations soon followed. The public sector also was not lagging; and certain enterprises, municipalities and provincial government departments also came forward to generate and distribute electricity.

The world's first ever hydroelectric power plant was commissioned one hundred years ago, it was in Godalming in England in 1881. India's first hydro-electric plant came soon after, i.e. in 1897. It was the small Municipal Town Lighting Plant at Darjeeling. It was followed in 1902 by the Cauvery River Scheme at Sivasamudram, Mysore and supplied power to Kolar Gold Fields, 92 miles away. This initial undertaking has since grown steadily. Power was also generated in small quantities in other states like Madras (1908), Kashmir (1908) etc. Even though major projects were undertaken in the early stages, it is interesting to note that during the 23-year period between 1897 and 1920, India's installed capacity of hydro electricity stations increased by about 400 times from 10 kw to 79,505 kw.

World-War I (1914-18) gave impetus to the use of electricity over the world. In India, on the recommendation of the Indian Industrial Commission (1916-18) a hydrographic survey was undertaken by one Mr G. T. Barlow, (chief

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r, irrigation, of the then United
vinces) with Mr J. W. Meares
electrical adviser to the Government
India). In this survey report
21), the first of its kind, it was
estimated that a minimum continu-
water power of nearly 3.5 mn.
with a maximum of 8 mn. kw
ld be developed in India. This,
course, turned out as under-estima-
n. India's current hydro-electric
ential, according to the Planning
mission's Working Group Re-
t on Energy Policy, 1979, is 421.3
kwh. Assuming prevailing load
tors of 42 per cent, this is equiva-
d to 106 mn. kw, over 13 times
re than Barlow and Meares' very
t estimate of a maximum of 8 mn.

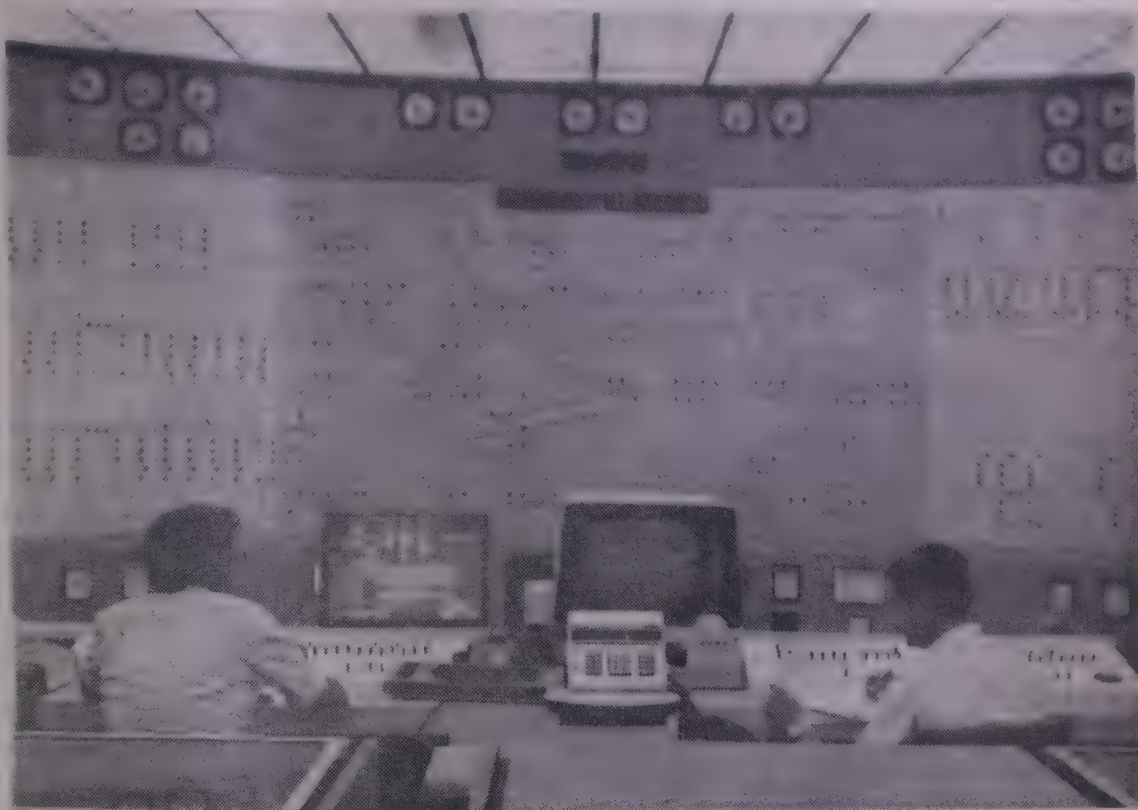
But considering the fact that
survey was carried out six deca-
s ago, the efforts of these two
berts were commendable.

By the time their report was
published, government seems to have
t its direct interest in the devel-
ment of provincial public works.
Whatever significant development
ok place was mainly at the initia-
e of the private enterprise.

Coming of Tatas

The coming in of Tatas in the
ld of power generation was a land-
mark. A highly informative handout
published in 1948 by Central Board
Irrigation said: "It is indeed a
great compliment to Indian enter-
prise that the three biggest hydro-
electric installations that exist in
dia to-day are the result of private
ort sponsored by that great indus-
alist Sir (sic) Jamsetjee N. Tata."
The first of these was owned by the
Tata Hydro-Electric Power Supply
and came into operation as early
1915. This was followed by the
Madhra Valley Power Supply Co in
22 and the Tata Power Supply Co
1927. The combined installed capa-
y of these three companies stood
232 mw, almost half the total
hydro-electric capacity of 499 mw
India in 1947.

The uniqueness of the scheme
ualised by Jamsetji Tata (1839-
04) was to build artificial reser-
irs on the brink of the Western
Ghats and speed the flow of water
own the pipes of the power houses
the foothills of the Ghats. Intro-
ction of this modern technique
volutionised the hydro-electric sec-
r of India. Until then hydro-elec-



Computerised load despatch centre, the nerve centre of the Tata electric system.

tric power was harnessed only
through natural waterfalls.

It also goes to the credit of
Jamsetji Tata that he foresaw "that
Bombay would emerge one day as
the industrial nerve centre of India
and resolved to liberate it from the
environmental misfortune of coal
burning, and bless it instead with
a clean and renewable source of
power from hydro-electricity."² With
the advantage of hindsight, Jamsetji's
concern for environmental pollution
as well as for the modernisation of
India's hydro-electric sector indeed
appears remarkable, as at that time
not even the industrialised West
seemed fully conscious of the hazards
of pollution.

By the year 1920 India's total
installed capacity of power was only
134 mw. According to India's very
first comprehensive statistical report³
on electricity, this rose over nine
times in two decades to 1,251 mw in
1944. Generation of power increased
from 2.5 bn. kwh in 1939 to 3.6 bn.
kwh in 1943 — a growth of almost
1.5 times within a span of four years.

As in 1943, India had in all 524
utilities, of which 377 were in Bri-
tish India and 147 in the then prin-
cely Indian states. A cursory glance
at the list of public electricity un-
dertakings in British India and those
in the Indian states presented in this

report would go to show that a vast
majority of these undertakings were
owned and managed by private
enterprises, who legitimately can be
credited with ushering in the era
of electricity in India.

Power sector after Independence

Though electricity became avail-
able in the early part of the century
in certain privileged pockets of urban
India, its growth came only after

The coming of Tatas in the
field of power generation was a
landmark. A highly informative
handout published in 1948 by the
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"It is indeed a great compliment
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exist in India today are the result
of private effort sponsored by that
great industrialist Sir (sic) Jam-
setjee N. Tata".

India's independence and that was
mostly under the induced leadership
of the public sector.

India's installed capacity com-
prising both utilities and non-utilities
(i.e. generating units installed by
establishments for self-use) increased
from 2.3 mn. kw at the end of 1950
to 33.1 mn. kw at the end of March
1981. In 1980-81, the generating capa-

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city comprised (i) hydro-electricity, 12 mn. kw (36 per cent of the total), (ii) thermal, 20.5 mn. kw (62 per cent) and nuclear, 0.9 mn. kw (2 per cent). Electricity generation increased from 7.5 bn. kwh in March 1950 to 119.2 bn. kwh in March 1981. As a result, per capita consumption of electricity rose 7.5 times from 18 kwh in 1950 to 135 kwh in 1980-81.

Declining share of private sector

The share of the private sector steadily declined over the years after independence. During 1951, out of a total gross generation of 7.5 bn. kwh of electricity (5.9 bn. kwh from utilities plus 1.7 bn. kwh from non-utilities), the share of private sector was 3.4 bn. kwh that is, 45 per cent of the total, but it has since dwindled to just about 6 per cent.

Shortage of power

The Sixth Plan (1980-85), envisages an additional generating capacity of 19,666 mw. However, on the admission of the Minister for Planning himself, the actual capacity creation would fall short of the target by 5,000 mw, with only 7,500 mw likely to be added during the first three years of the Sixth Plan.

In fact, rarely in the era of planning, power targets have been reached. As a result, the gap between demand and supply of power continues at 12 per cent on the average for the last seven years.

Some experts suggest that India, like most of the western countries, should have a generating capacity in excess of its requirements as a standby to even out power shortages. This prescription pre-supposes the existence of a national grid which we still do not have.

In the last analysis, the endemic power shortage stunts the economic growth of the country to-day as it has done in the past.

Organisation structure and legal aspects

For a clearer understanding of India's power problem, a reference to the regulatory structure of power industry will be necessary. The power industry was started, nurtured and grown till 1940s mainly by the private enterprise. In mid-fifties it was suddenly taken over by the public sector with only a marginal role left for the private sector.

The earliest legislation attempting to regulate the use of electrical energy on an all-India basis was the Electricity Act of 1887. This was intended to be a "temporary expedient" aimed at protecting the public by means of rules dealing with the use of electricity. The first comprehensive legislation empowering the state governments to grant licences for the supply and planning of electricity was the Indian Electricity Act of 1910 (as amended from time to time) and is one of the two important governing legislations of India's power industry. The second one is the Electricity (Supply) Act of 1948, aimed at rationalisation of production and supply of electricity

The share of the private sector declined over the years after independence. During 1951, out of a total gross generation of 7.5 bn kwh of electricity (5.9 bn kwh from utilities plus 1.7 bn kwh from non-utilities), the share of private sector was 3.4 bn kwh, that is 45 per cent of the total, but it has since dwindled to just about 6 per cent.

and generally for taking measures conducive to power development in the states of the country. This legislation was needed because prior to its inception, Indian power sector was dominated by numerous undertakings, the bulk of them being at urban areas with each having its own independent system to supply power. There was a lack of co-ordination among them and the growth of electricity was quite haphazard.

Nationalisation was not the objective of the 1948 Act. It was designed for unification of industry through a grid system so as to make power supply more economic and reliable. It also provided for the creation of (i) state electricity boards (SEBs) for "promoting co-ordinated development of generation, supply and distribution of electricity within the State", and (ii) the Central Electricity Authority (CEA) for developing a sound, adequate and uniform national power policy and co-ordinating activities of the various planning agencies.

However, the Act of 1948 in its sixth schedule not only laid down the financial principles on which private-owned electricity undertakings must operate, but prescribed

ceiling on the earnings of the private entrepreneur from this industry. According to the late Naushir E. Rucha, one of India's very competent authority on electricity legislation, these private undertakings do not earn by way of its 'clear profit' anything more than the prescribed 'reasonable return', which is nothing more than the Bank rate plus two per cent on the entrepreneur's capital base. In fact, the financial restriction was so much "that old to-day scrips of the electricity undertakings have virtually become 'untouchables' of the Indian Stock Exchanges."

Thus the Act of 1948 paved the path of Indian power industry towards future "public-sectorisation"; which formally came at a later stage when the Indian Industrial Policy Resolution (IPR) of 1956 was announced. Meanwhile the Constitution of India placed electricity in the concurrent list.

Industrial Policy Resolution

The IPR, 1956 reserved generation and distribution of electricity almost exclusively for the public sector. Generation and distribution of electricity, atomic energy, heavy electrical plants and minerals specified to atomic energy were placed in the Schedule 'A', which enumerated the industries, the future development of which would be the exclusive responsibility of the state. However, this provision "does not preclude the expansion of the existing privately owned units, or the possibility of the State securing the co-operation of private enterprise in the establishment of new units when the national interest so require."

Nationalisation was not the objective of the 1948 (Electricity Supply) Act. It was designed for unification of industry through a grid system so as to make power supply more economic and reliable.

IPR 1956 also mentions: "In appropriate cases, privately owned units may be permitted to produce an item falling within schedule for meeting their own requirements or as byproducts." The relevant portions of these two clauses, as mentioned above, provide scope, in a limited way, for producing goods in the private sector in respect of industries mentioned in schedule 'A'. The

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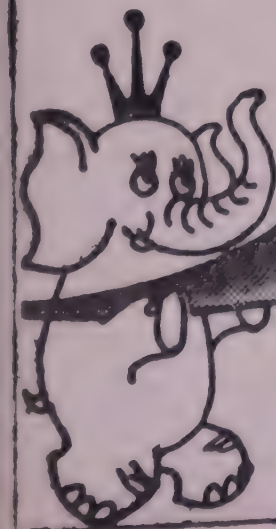
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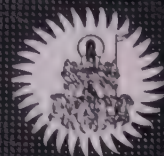
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private sector has been assigned marginal role in India's power sector under IPR, 1956. There were 300 undertakings operated by state licencees and about 270 departments of state governments and municipalities in 1951. The SEBs frequently did not renew the state licences and slowly but steadily absorbed many of the smaller utilities. As a result, by the end of 1978 only 40 private licencees remained valid including three utilities in the area of both generation and distribution viz. the Tata Electric Co., and the Calcutta and Medabad Electricity Supply Corporations.

Performance of private and public sector

As the power industry has been assigned to the public sector by government's policy-decision, the private sector utilities, with only about 6 per cent share in the total power generation, have only a marginal role to play. Any generalised comparison between the performance of the two sectors on the yardstick of capacity utilisation, which in itself is a misleading yardstick, needs to be judged with a high degree of reservation. As regards the yardstick, there is no basis to make any comparison other than the differences in the rates of capacity utilisation, though in advanced countries often a criterion of the 'power on the line' i.e. the likely availability of power as and when required is used alongside other criteria.

Generally speaking, the average rates of capacity utilisation in the public sector is much below the rates obtained in the private sector, which are quite comparable to the high rates obtained even in the advanced countries. For example in the thermal power plant of Tata Electric Companies the load factor was as high as 74.5 per cent in 1979-80, 69.7 per cent in 1980-81 and 77.8 per cent in 1981-82, while the same for the nation as a whole was 45.4 per cent in 1979-80, 47 per cent in 1980-81 and 47 per cent in 1981-82. Similarly, the capacity of power plant of HINDALCO at Anusagar with a licensed capacity of 125 mw, generated as much as 125 mw in 1979 (when, of course, the 12-week statutory annual overhaul was not allowed due to various reasons) which is considered a record performance.



India's first 500 mw thermal unit under construction by Tata Electric Co at Trombay.

It is important here to mention that the Report of the Committee on Power headed by Mr V. G. Rajadhyaksha had felt that a plant load factor (PLF) of 58 per cent, modest as it is, "would represent a reasonable level of efficiency in the Indian environment." This is only 2.8 percentage point higher than the highest ever national PLF rate of 55.3 per cent achieved in 1976-77. The Working Group on Energy Policy also visualised that the PLF could be raised to 63 per cent at its reference level forecast and 66 per cent at optimal level forecast by the turn of the century. Notwithstanding the possibility of achieving this recommended level of 58 per cent in the near future, the fact remains that PLF of the private sector like Tatas is too high for the public sector as a whole to attain even in the foreseeable future. But there are some stray cases, where a couple of the public sector plants have sometime attained capacity utilisation level equal to that of private sector e.g. Nasik, Parli, Bhusawal, Amarkantak, and Ramagundam.

This clearly suggests that if the PLF can be improved so that capacity utilisation of the power plant could be raised to about 60 per cent from its present level, then the present power shortage could be totally eliminated without any additional investment in generating capacity.

This need not be considered an impossible task as there are already some half a dozen plants in the public sector that have achieved higher capacity utilisation rates—comparable to that of the private sector. Sincere efforts are however needed to raise capacity utilisation rate in the public sector power industry as a whole.

The average rate of transmission and distribution loss of the country is now as high as 20 per cent, twice as high as in the advanced countries. According to the report of the Working Group of Energy, the present rate may only be improved to 14 to 15 per cent by the year 2000 AD under the typical Indian condition. But it will be of interest to note for whatever it is worth, that the rate of transmission and distribution loss is as low as 3 per cent in each of the last three years for highly efficient private sector utilities like Tata Electric Companies.

Increasing role of private sector?

This being the scene, would it not be prudent to allow a more significant role for the private sector? In fairness, it needs to be stated that in the last few years, some expansion has been allowed e.g. one 500 mw thermal unit in the country viz. the Tata unit at Trombay, sanctioned in 1977 would be commissioned soon. Tata's second 500 mw plant replacing the three ageing 60 mw units has re-

COVER STORY

portedly been recommended by the Maharashtra Government for sanction to the Central Government. Clearance was also given in 1981 to the Ahmedabad Electricity Co Ltd for installing the second 110 mw generating plant. Certain captive plants were also allowed to expand e.g. Hindalco's two additional units of 67.5 mw each are in the process of construction. But these appear like exceptions rather than the rule.

On the issue of a policy change in favour of expanding the capacities of the efficiently run private sector utility, the Rajadhyaksha Committee recommended that "there is no compelling case of changing the policy in regard to the private sector utilities. Government should as at present consider proposals for expansion/construction of new private sector utilities on a case by case basis." According to the committee, the problem of inefficiency of the vast majority of public sector utilities lies elsewhere, not in their

But the IPR (Industrial Policy Resolution) 1956 itself has a clearly written provision by which expansion of private sector utilities could be allowed to a large extent even without any policy change at all. It is all left to the discretion of government whether or not to interpret the text of the IPR 1956, particularly clause 8 and 12 (relevant portions) in a flexible way or not.

'ownership' pattern. The committee reasoned that there were also a few public sector utilities where performances are comparable to the efficiently run private utilities. This in effect means that the main contention of the IPR 1956 has been endorsed by the committee. But the IPR 1956 itself has a clearly written provision by which expansion of private sector utilities could be allowed to a large extent even without any policy change at all. It is all left to the discretion of government whether or not to interpret the text of the IPR 1956, particularly clause 8 and 12 (relevant portions) in a flexible way or not. The larger interest of the nation definitely makes a case for expansion of private sector power industry complementing the dominant role of the public sector.

All that really matters at the

moment is that government should take a quick decision in allowing the deserving cases. Otherwise, because of the delay, the cost of the project goes up enormously e.g. when the proposal of the first 500 mw project of Tatas was made in 1969, its cost was Rs 87 crores. This escalated to Rs 180 crores in 1977-78, when the project was cleared and posed to the World Bank for funding. Besides, generally speaking, the non-implementation of a 500 mw unit thermal unit results in a shortfall of 300 mw of power in a year in the industrial sector and consequently a loss of gross production valued at about Rs 438 crores per year at 1980-81 prices. As a result, government too would suffer a loss of revenue to the tune of Rs 81 crores (at 1980-81 prices) annually.

Captive units

As regards captive units, the Rajadhyaksha Committee recommended that only in four special cases viz. (i) new gas-based fertiliser plants, (ii) power sensitive units such as steel plant and artificial fibre units, (iii) large aluminium units and (iv) coal washeries, captive power units could be allowed on economic grounds. If this recommendation is accepted, the general contention of the IPR 1956, particularly the interpretation of the relevant portions of clauses 8 and 12, would be even more restricted. It would be a matter of debate whether more industries, particularly if these are located in remote and backward areas in power-scarce regions, could also be justified on economic grounds, to have captive plants or not. There need not be any once for all answer to that. As such it will be prudent to read this recommendation of the Power Committee only as a guideline for justifiable grounds on the basis of economics and not to cancel the proposals for captive units just because they are not any of the four as listed by the Committee.

It might happen that a captive unit may produce some surplus power. Once a unit is established because of its efficiency or on economic grounds, it may happen that it can, and should, produce surplus power. In power-scarce conditions this should indeed be welcome. The surplus power could be allowed to be sold to the regional grid at a price determined as per the norms. If a particular industry surrenders sur-

plus power to the grid in one area and it has another industrial unit in some other power deficit area of the country and does not have a captive power plant there, it should be given preference to get at least the equivalent watts of power as a part of a balancing deal. Some such arrangement could be for the best interest of the industry and country. These issues should be quickly solved and a realistic and unified policy for the captive units needs to be evolved.

It is pertinent here to mention that the Planning Commission, reportedly, advised the Central ministries and state governments to go in for captive power plants to insulate the operation of vital industries from power cuts and fluctuations.

While making this case for expansion of private sector power industry, it should be remembered that there is a dilemma here. Private sector as a whole may not be eager to enter into it as the return on investment in power generation is low. It is highly capital intensive and the gestation period very long. Thus those private sector units which come forward with proposals for expansion of their power units or captive units will do so out of necessity. In fact, during the last several years the private sector has made several proposals to install new capacities for generating power. It has been pleading with government to increase the debt-equity ratio at least 7:1 on the ground that the power industry is highly capital intensive, its gestation period is very long, and return on investment in power is rather low.

It has made a case for obtaining loans from financial institutions as the cost of power generation is high as about Rs 1.5 crores per mw of capacity. But unfortunately government insists that the private sector industry should finance captive power projects from its own internal resources. This has been emphasised very recently by the Energy Secretary, in a meeting when he, reportedly, observed that government would welcome entry of the private sector in power generation, provided it could bring in additional financial resources without going to the state government and public institutions for finance. Needless to say, the pa-

COVER STORY

tion of the private sector in the er/industry/would heavily de- on the response to its plea for itutional finance.

iff issues

The question of financial aspect the public sector undertakings, icularly the SEBs which account about 80 per cent of the country's er production needs prompt at- tion. The combined loss of SEBs 1978-79 was Rs 230 crores which e to Rs 770 crores in 1981-82. ides low tariff, as pointed out by Rajadhyaksha Committee, the ses of the poor performance are low operating efficiencies, high of projects due to long delays construction and very high over- ds mainly because of overstaffing on an average, employees per gawatt of installed capacity in a is 7 compared to 1.2 in the A, 1.5 in Japan and 1.7 in the UK.

On the subject of financial nagement and tariff of electri- undertakings, the Rajadhyaksha mmittee did a careful study. The mmittee has recommended that in public sector utilities, the return uld have to be adequate for an ertaking to operate on sound mmercial principles and it should far as possible generate finance ernally to sustain growth. Ac- ding to the committee, the rate return should be calculated ac- ding to its recommended methodo- y and should be 15 percent on the umption that the average rate of erest on loans to the SEBs is 7 cent. If the borrowing rate is eased the return should go up epondingly. As regards inter- generation of resources for ex- sion over a longer term, the com- tee recommended that the utility npanies should aim at generating ut 50 per cent of the resources.

For the private sector utilities, financial return should, according the committee, follow the general delines prescribed by government fixing administered prices i.e. y should be allowed to earn a 4 per cent return after achieving prescribed minimum norms of ormance. Besides, regular annual ew of power tariff should be d.

The acceptance of Rajadhyaksha mmittee report would inevitably ult in the increase in rates of ff for various classes of consu-

mers. It is clear that a significant increase in power tariffs would have inflationary implications for the economy as a whole. To a large extent this seems to be unavoidable, but to some extent the consequent hardships can be mitigated by localising the tariff increases to areas which have a better capacity either to bear the additional cost, or to practice conservation.

The acceptance of the Rajadhyaksha Committee's report would inevitably result in the increase in the rates of tariffs for various classes of consumers. It is clear that a significant increase in power tariffs would have inflationary implications for the economy as a whole.

Electricity industry in some western countries

It will be of some interest to make a quick reference to the structure of electricity utilities in some other countries. The ownership pattern of electricity utilities in the USA is opposite of that of India. In the USA 11 private sector utility companies take the major part in generating and distributing electricity, while the public sector (composed of federal government, municipalities and co-operatives) takes a back seat. The total installed capacity of electricity in the USA of both utilities and non-utilities in 1979 was 616 mn. kw, of which the share of utilities was 598 mn. kw. The private sector utilities with 464 mn.kw of installed capacity held a share as high as 78 per cent of total utilities.

Unlike many other countries Canada has a very long history of power generation by publicly owned utilities. In the province of Ontario almost all electric power has been produced by a publicly owned utility for over 60 years. Even for the country as a whole publicly owned utility for over 60 years. Even for the country as a whole publicly owned utilities contribute the major share in power generation. In 1975, out of Canada's total generation of 273 bn. kwh the share of publicly owned utilities was as high as 69 per cent. The share of "investor owned" utilities i.e. private sector utilities was about 19 per cent. The rest come from industrial establishments, or non-utilities.

But the case of Great Britain is close to ours. Though the British economy is largely based on private enterprise, some major industries including most of British energy and transport sectors and some manufacturing industries are under public sector. But direct state participation in industry is effected through public corporations sponsored by government departments. The managing board and staff are not generally civil servants. Although they are accountable to Parliament, it is they and not the ministers who are responsible for the management. They have greater degree of autonomy than their Indian counterparts.

As in Great Britain, in France the concept of mixed economy has been adopted. The first wave of French nationalisation took place during 1944-46 when the entire energy sector covering coal, gas, electricity and later on the nuclear energy became almost a state monopoly.

Epilogue

This review of the power generation industry in India and the references to the experience of some other countries has a message which should not be lost.

As stated at the outset, the importance of power generation for economic progress and development of our country is not in dispute. It was only in the pre-independence days that the private sector had an effective role in this industry; and its performance then cannot by any means be considered to be unsatisfactory. Even then, with the IPR 1956, the private sector was denied any worthwhile participation in the development of this industry. The industry's post-1956 performance has never been much to write home about, and it has become less and less promising over the years. Even if we assume, without necessarily agreeing with it, that the Rajadhyaksha Committee was right in concluding that 'it is not the case that utilities cannot or have not operated efficiently because they are publicly owned (emphasis added)', we are still left without any convincing argument as to why the private sector, despite its 'demonstrably higher efficiency' should be obliged to be left out of this priority area.

If anything, the post 1973 energy crisis has lent a new sense of urgency

COVER STORY

to the efficient development of this industry. All over the world, in the energy area, ideological and other differences are fast vanishing with the one object — harnessing energy. Take note of the massive \$23 bn. oil-field — the USA's largest — at Prudhoe Bay on the north slopes of Alaska, or the proposed US — Canada \$43 bn. gas pipeline project, which will be the world's largest in any area, or the trans-Siberian pipeline projects where even governments and countries with widely different ideologies have come together with their private sectors. Take note of the fact also that fusion energy is one of the few or perhaps the only area where the fruits of current massive research are being shared without inhibitions — among the private or the public sector agencies; among all countries east or west, north or south. All these bear testimony, if one were needed, to show how the private sector ingenuity is playing a role in tackling problems which would have been considered impossible in the past.

Against this backdrop, the continued policy exclusion of the pri-

vate sector in power generation appears distinctly paradoxical.

Not that there would be anything like a stampede of entrepreneurs to set up power plants, if and once these restrictions are removed. The industry has become too complicated and sophisticated for it. But those few who may be able to muster the needed financial, technological or manpower support required, will have the satisfaction of being welcome. If anything, they will also provide a strong competitive base and test to the public sector utilities.

Recent welcome changes in other areas of economic policy provide a hope. In respect of power generation itself, government spokesmen, as seen earlier, have been occasionally showing 'welcome' flags to the private sector. These need to be translated formally into the Industrial Policy Statement. There are wide differences in thinking in respect of such basic issues as the debt: equity ratios, or the channels of transmission of power so generated. These need to be thrashed out in a practical manner. We have yet a long way to go.

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CAPITAL MARKET

Amalgamation of SPL with ASE

The amalgamation of Standard Pharmaceuticals Ltd (SPL), Calcutta, with Ambalal Sarabhai Enterprises Ltd (ASE) of Baroda, was approved by the Calcutta High Court. From now onwards SPL will operate as another division of ASE and all its business, liabilities and the properties of SPL will be transferred to ASE. As per the terms of amalgamation agreement, for every 1,000 transferred shares of rupee one each of SPL, ASE will offer 20 equity shares of Rs 10 each and eight 15 per cent redeemable bonds of Rs 100 each of ASE. Further, for every 8.6 per cent cumulative preference share of Rs 100 of SPL, one 10.5 per cent redeemable bond of Rs 100 of ASE will be issued. The amalgamation of these units is expected to be beneficial for SPL and Sarabhai Chemicals, the pharmaceutical division of ASE which procures a major portion of its requirements of bulk penicillin from SPL. By this amalgamation, ASE will have direct access to the entire production of penicillin of SPL and also help it to expand its business in penicillin formations. SPL has an industrial licence for producing some prominent antibiotics like erythromycin and ampicillin. However, the development of these expansion schemes by SPL will involve an outlay of Rs 6.5 crores. Since SPL will not be able to raise this amount on its own, ASE will now provide finances for this expansion.

Ruias appointed directors in Killick Nixon

Mr B. R. Ruia, Mr T. B. Ruia and Mr H. B. Ruia directors of Dhanraj Mills Private Ltd have been appointed directors on the Board of Killick Nixon Ltd. With their inclusion in the Killick Nixon Board, three years of corporate litigation in regard to the management of the Company has now ended. By a verdict passed by Justice Sujata Manojkar of the Bombay High Court on August 14, 1982, the joint management of the Ruias and the Bina Kapadia groups in the company has come into operation with immediate effect. This order is an outcome of

the settlement arrived at between the Ruia and the Kapadia groups. The Board of Killick Nixon will be headed by Mr R. M. Kantawala, a ret'd. chief justice of Bombay as the court-appointed chairman. The other members in the board are Miss B. P. Kapadia, Mr B. R. Ruia, Mr T. B. Ruia, Mr H. B. Ruia, Mr J. N. Tacker, Mr Manilal Virchand and Mr K. Shah. Both the Kapadia and Ruia groups will be equally represented on the boards of all the subsidiary companies of Killick. The new board will be entrusted with the day-to-day affairs of the company till April 1985. Meanwhile, the two groups are at liberty to negotiate for separations of interest. A further provision has been made that if the two groups fail to come to a settlement, the ret'd. chief justice of Bombay, Mr K. K. Desai, would be authorised to effect a partition of the company, whose order will be binding on both the groups.

Bombay Burmah: Controlling interest acquired by Wadias

Wadias of Bombay Dyeing and Manufacturing Co. Ltd. have increased their shareholding in Bombay Burmah Trading Corporation Ltd to about 27 per cent by buying large blocks of shares in recent weeks. Thus, Wadias are now in full control of Bombay Burmah Trading Corporation Ltd and Mr Nusli Wadia is the company's chairman. Previously they acquired about nine per cent holding in the 119-year old company (incorporated in September 1863) by purchasing the total holding of Pratapsinh Vissanji and associates, who were managing Bombay Burmah for several decades. The company is one of the oldest corporate units in India and has varied interests in tea, coffee, timber, laminates and electronics, besides owning subsidiaries and associate companies operating in Indonesia, Tanzania and other countries. Following the recent acquisition of shares by Wadias in the market, the Rs 25 paid-up shares of Bombay Burmah have gone up from 38 to Rs 45. Wallace Brothers of UK., the original promoters of the company hold about 10 per cent of the company's equity. The finan-

cial institutions like the LIC, GIC and UTI together hold about 22 per cent of the Company's equity capital. The present Board of Bombay Burmah consists of Mr Nusli Wadia, (chairman), Mr Akbar Hydari, Dr Harish Bijawat and Mr V. Pandit. Mr A. K. Hirjee, a director previously, has now been appointed chief executive of the company. The company has taken up plans for diversifying its operations and embarking upon various new schemes.

Maneklal Harilal acquires a sick textile unit

Maneklal Harilal Spinning and Manufacturing Co Ltd has acquired the ownership of Behari Mills Ltd in Ahmedabad. According to Mr N. Ranchhodas, chairman and managing director of Maneklal Harilal, the Behari Mills Ltd has been taken over by purchasing controlling interests of the company. Behari Mills, which has a capacity of 30,000 spindles and 480 looms, had suffered a cumulative loss of Rs 2 crores during the past two years. The Behari Mills would now be fully rehabilitated and modernised at a capital cost of more than Rs 5 crores. A new board of directors headed by Mr N. Ranchhodas and Mr Dipak Navnitlal, has come into being. The Behari Mill will now be able to produce 'Manhar Fabrics' of Maneklal Harilal.

S.I. Shipping Corpn. to buy 4 vessels

The South India Shipping Corporation Ltd has placed firm orders for four bulk carriers each of the capacity of 37,300 dwt, with a Korean company at a cost of \$ 22.97 million per vessel. The ships are expected to be low fuel consumers and carry considerable flexibility in the handling of cargo. This had become necessary in view of the sharp decline in freight rates for bulk carriers. The tanker freight market is slumping steadily particularly with decline in oil transport by about 12 per cent and increasing pressure of competition on the dry cargo market. Volume of global seaborne trade declined by 5 per cent during last year.

SPECIAL REPORTS

World jute producers agree on minimum export price

CALCUTTA

WHEN the principal jute producing countries of the world, namely, India, Bangladesh, Thailand, Nepal and China met in Calcutta under the auspices of the Economic and Social Commission for Asia and the Pacific to thrash out specific issues in connection with the proposed International Jute Organisation they agreed among themselves to fix a minimum price for their products in the world markets. The modalities and the norms will be fixed as soon as possible in mutual consultation and these would be guided by the data and information that the Food and Agriculture Organisation and the ESCAP would provide on a regular basis. In short, the idea is to fix an indicative price for jute goods much in the same way as the FAO has been fixing it for the fibre. Below the indicative price no producer will be free to sell.

The striking conclusion emerged after specific issues such as remunerative price for the jute fibre, better transport and shipping arrangements for jute goods, market survey and market promotion had been discussed over a four-day session. It dawned on all concerned that no matter what they do to sharpen their competitiveness the fight against synthetics cannot be won as long as there was too much of intense competition among the producers.

The deliberations were marked by an obvious spirit of cooperation which had characterised their earlier deliberations in Nepal last January, when the abroad features of the proposed International Jute Organisation were discussed. As the host country, India took a conspicuous part in the Calcutta meeting which was chaired by M. A. K. Mukherjee, Joint Secretary, Ministry of Commerce. Inaugurating the deliberations, the Union Textile Secretary, Mr A. K. Dutt, delivered a lucid and cogent speech when he stressed the need for closer cooperation among the jute producing countries who are not only getting an unsatisfactory price for their products in real terms, but also are threatened by a no-holds-barred type of competition from synthetics.

While the keynote of Mr Dutt's speech more or less set the tone for the discussions at the meeting, the Thai delegate went a step further and suggested there should be no more expansion of capacity of the world jute goods industry; indeed there should be an output cut by 15 per cent, so that there would be some definite prospect of price stability.

Giving an example of the nationalisation move in the Thai jute industry, the Thai delegate, Mr Suchart Jaovisidha, who is the managing director of Bangkok Jute Mill, said that when one of the units proved to be chronically uneconomic it had to be closed down. This is a painful adjustment to which the jute industry of the world over has to go through if the current phenomenon of oversupply is to be corrected.

The jute industry in Thailand has an annual capacity of 250,000 tonnes and the 13 mills constituting the industry produce 220,000 tonnes of goods annually. The product range includes gunny bags, hessian and carpet backing cloth as well as yarn of all descriptions. Thailand exports 60 per cent of its output to West

European countries, Japan, Australia and the USA. The export volume has remained steady, but the earnings in real terms have gone down.

Considering that nearly 300,000 farmers are engaged in jute cultivation and 50,000 workers are employed in the jute mills, the decline of export income in real terms is posing a serious economic problem. Among the Thai jute producers there is a mutual understanding which governs the distribution of export income among themselves and undercutting in any form is avoided. China used to be an important buyer of jute goods from Thailand but lately has stopped buying any from Thailand because of the growth of its own jute industry, and that has affected the industry's prospects to some extent.

An interesting fact about the jute economy is that the mills are modernised, certainly more modern than those in India and Bangladesh and the average wage per worker is US \$3.50 a day which is higher than that obtainable in either India or Bangladesh. Even no cash assistance has been given for jute goods exports as the productivity of men and machines is higher.

Another interesting point is that the jute mills in Thailand have signed an agreement with the government for a guaranteed minimum price for kenaf which is the Thai variety of the jute fibre. The guaranteed price is \$260 a tonne for grade A and (US) \$239 a tonne for Grade B. The mills buy their raw material through 23 purchasing centres. The Thai industry used to import some jute either from Bangladesh or China but this year due to an excellent kharif crop, self-sufficiency has been achieved. The properties of kenaf are better than raw jute and as such is an ideal raw material for hessian and carpet backing, so the Thai delegate claimed.

During the current year, India is facing unhappy prospects of a slump in export demand and most of the country's jute exports in 1982-83 is 375,000 tonnes. During the previous financial year, the country exported 400,000 tonnes and the year before, it was 450,000 tonnes.

Bombay spot exchange rates of currencies as on 20th Sept., 82

(Currency units per Rs. 100)

Country	Currency	Selling T.T.D.D.	Buying T.T.clean
Australia	A. \$	10.695	10.900
Austria	A. Schilling	179.30	183.50
Belgium	B. Franc	491.00	501.50
Canada	C. \$	12.640	12.865
Denmark	D. Kroner	90.20	91.90
France	Franc	72.25	73.65
Hong Kong	H.K. \$	62.50	63.75
Italy	Lira	14390	14696
Japan	Yen	2701	2748
Malaysia	M. \$	24.17	24.61
Netherlands	Guilder	28.01	28.51
Norway	N. Kroner	71.00	72.35
Singapore	S. \$	22.21	22.62
Sweden	S. Kroner	63.80	65.00
Switzerland	S. Franc	21.80	22.15
UK	£	5.0360	6.0805
USA	\$	10.285	10.390
West Germany	D. M.	25.60	26.04

Source: Syndicate Bank, International Division
Central Office. Bombay-400 021

SPECIAL REPORTS

s. Against this background of jute exports, the industry is worried about its future viability as the domestic demand, rising though it has been, does not take care of the industry's entire problems. For one thing, the domestic market for consumed jute goods are mostly low value which is rather a low value market and consequently, in the absence of an adequate export outlet, the industry will have to produce more of the low value varieties which would depress prices further than it has so far done.

In other words, the 30 per cent or more of the output that the Indian jute industry is currently exporting is the key to its survival as well as its prosperity, and India rightly attaches the greatest importance to some effective form of international cooperation by which world market prices can be maintained at remunerative levels and at the same time, there would be sufficient incentive for product diversification and market exploration. The outcome of the Calcutta deliberations has therefore been very satisfactory from India's point of view.

A few weeks from now the world's producing and consuming countries will be meeting in Geneva to thrash out details of the proposed International Jute Organisation and the prospects of an agreement between the producing and consuming countries being reached in Geneva are reported to be quite bright.

Gloomy prospects for Bangladesh jute

by M. A. ZAKARIA SHIRAZI

DACCA
THE outlook for Bangladesh's principal cash crop, jute, during the peak season of the current year appears gloomy, according to a trade survey. The jute yield, which fell from 65 lakh bales in 1978-79 to 46 lakh bales in 1981-82, may decline further this year due to an unfavourable price ratio and the absence of a policy that would ensure a fair price to cultivators. Adverse weather conditions including spells of drought in certain areas also affect jute cultivation. Jute cultivators are unable to find ready buyers as

Mr K. Vijaya Bhaskara Reddy

HYDERABAD

Mr K. Vijaya Bhaskara Reddy, the new Chief Minister of Andhra Pradesh, was born on August 16, 1920 at Laddagiri in Kurnool district of Andhra Pradesh. He received his early education at Coles Memorial High School, Kurnool and graduated from Besant Theosophical college at Madanapalli in Chittoor district. He obtained the law degree from Law College, Madras and was a practising lawyer up to 1955. He was elected to the State Legislative Assembly for the first time in 1955. He was also a Member of the Legislative Council of

the State from 1967 to 1972. He was elected the chairman of Zilla Parishad for Kurnool district in 1959 and again in 1964 and continued up to 1967.

Mr Reddy was a Minister in the State Cabinet from 1967 to 1971 holding various portfolios. He was elected to the Sixth Lok Sabha in 1977 and to the Seventh Lok Sabha in 1980. Mr Reddy has been a member of several committees of Union Government. Keenly interested in sports, he was the chairman of the Andhra Pradesh Sports Council from 1968 to 1970.

The United Nations Conference on Trade and Development which has made a tireless effort to bring the producers and consumers together and eventually find an agreement on various contentious issues should be complimented on the perseverance it has shown. Moreover, it has let it be known that should an International Jute Organisation eventually come into being, the UNCTAD will make available a sizable fund to finance not only research and development but also market promotion efforts that will ultimately ensure remunerative prices for jute goods.

lakh bales, of which Bangladesh exported 16 lakh bales or 53 per cent, representing a 19 per cent fall. Jute exporters claim that the factors which affected jute exports were a minimum export price, export duty on raw jute and the failure of the jute marketing corporation to explore wider markets. Synthetic fibres are also increasingly being used in importing countries.

In the current year, the Export Price Check (EPC) has been waived to enable exporters to offer raw jute at internationally competitive prices. The export duty on raw jute has also been withdrawn. With these concessions jute exports are expected to rise. But a rise in the volume of exports will not necessarily benefit the economy if the foreign exchange earnings do not also rise. Foreign exchange earnings from raw jute exports (of 20 lakh bales) are expected to approximate Taka 244 crores in the current year. In fact export earnings from jute goods exports are falling, while the cost of production is rising. One estimate shows that the cost of production of a tonne of jute goods has risen to Taka 11,341 in 1980-81 from Taka 10,745 in 1979-80. On the other hand, export earnings have fallen from Taka 30,372 per tonne in 1979-80 to Taka 20,380 per tonne in December 1981. In 1981-82, jute goods earned Taka 557 crores and raw jute Taka 215 crores representing 46.42 per cent and 17.19 per cent of total export earnings of Taka 1,200 crores.

many shippers have moved out of the jute trade this year, because of the losses sustained in the past three years.

Experts estimate that Bangladesh's share of world trade in raw jute exports fell from 70 per cent in 1969-70 to 53 per cent in 1977-78. Quoting FAO reports they claim that in 1967-68 the total world trade requirement was 53 lakh bales and exports from Bangladesh amounted to 39 lakh bales or 73 per cent of world trade. In 1977-78, on the other hand, the world trade requirement was 31

SPECIAL REPORTS

MADHYA PRADESH

Promoting oilseeds farming

BHOPAL

MADHYA Pradesh has justly earned the sobriquet, the 'Soyabean State' of India and what the farmers of this state have achieved is a near-miracle. Nevertheless it is worth reiterating that the State is a major producer of the more common oilseeds which are grown in over 1.57 million hectares or over twice the area under soyabean.

The area under various oilseed crops and production (1980-81) was:

Name of oilseed crop	Area (Lakh Ha)	Production (Lakh tonnes)
Linseed	5.6	1.22
Groundnut	3.3	2.02
Sesamum	2.44	0.36
Niger	2.28	0.33
Rape & Mustard	2.12	1.40
Castor	0.04	0.01
TOTAL	15.78	5.34

The anticipated production last year was 6.36 lakh tonnes and the target for the current year (1982-83) is 7.00 lakh tonnes. The strategy adopted for achieving this target is three pronged: First, to increase production by the application of improved package of practices, secondly, by bringing kharif and rabi fallows under oilseed crops, and thirdly, by the replacement of low-economy cereals and millets by more remunerative oilseeds.

It is proposed to grow summer groundnut near tanks, tubewells and dugwells on 50,000 hectares. Similarly, irrigation will be provided to rape and mustard crops on 20,000 hectares.

The package of improved practices to be applied to all oilseed crops over a total area of 5.87 lakh hectares includes use of improved seed, recommended doses of fertilisers, timely sowing, inter-cultural operations, proper plant popu-

lation and full-scale plant protection measures. Rhizobium culture will also be encouraged for suitable varieties of seeds.

In areas where pests of groundnut, rape and mustard are endemic, pesticides will be stocked in advance to the tune of 10 per cent of the demand and a pest surveillance unit, Indore, will monitor the areas watchfully to initiate action.

To show to the farmers the obvious advantages of the adoption of package of improved practices, over 14,000 demonstrations covering a hectare each will be made for all major oilseeds crops including groundnut, sesamum, niger, linseed, castor, safflower, rape and mustard. Over 20,000 minikit demonstrations covering a half hectare each will also be laid.

The fat content of our diet is not being provided by oils of vegetable origin. Looking to the gravity of the shortage of this essential protective component of diet, any improvement in the production of oilseeds contributes to the general well-being of the community. The added advantage is that this crop brings to the farmer no less significant.

Retail prices of essential commodities in Bombay

Compiled by Commerce Research Bureau

Item	Quality	Rs per kg				Percentage variation on September 17, 1982 over		
		Sept. 17, 1982	Sept. 10, 1982	Aug. 20, 1982	Sept. 18, 1981	A week ago	A month ago	A Year ago
Rice	Average	5.00	5.00	5.00	3.60	—	—	38.9
Wheat	Average	4.25	4.25	4.25	3.50	—	—	21.4
Jowar	Average	3.00	3.00	3.00	2.30	—	—	30.4
Bajra	Average	3.00	3.00	3.00	2.30	—	—	30.4
Gram dal	Average	6.00	6.00	6.00	6.50	—	—	-7.7
Tur dal	Average	7.00	7.00	7.50	6.80	—	-6.7	2.9
Potatoes	Average	2.50	2.50	2.50	2.20	—	—	13.6
Onions	Average	2.00	1.50	1.50	1.60	33.3	33.3	25.0
Milk per litre ..	Buffalo	6.00	6.00	6.40	5.60	—	-6.3	7.1
Tea	Average	26.00	26.00	26.00	23.00	—	—	13.0
Coffee	Average	20.00	20.00	20.00	17.50	—	—	14.3
Kerosene per litre ..	—	1.66	1.66	1.66	1.66	—	—	—
Bread (400 gm) ..	—	1.70	1.70	1.70	1.55	—	—	9.7
Sugar	Average	4.70	4.60	5.40	5.80	2.2	-13.0	-19.0
Gur	Average	5.25	5.25	6.00	6.60	—	-12.5	-20.5
Groundnut oil	Average	15.00	14.80	15.00	16.50	1.4	—	-9.1
Vanaspati	Average	17.00	16.50	17.00	15.50	3.0	—	9.7
Toilet soap	—	2.00	2.00	2.00	1.95	—	—	2.6
Exercise book (200 pages) ..	—	2.50	2.50	2.50	2.50	—	—	—

UTTAR PRADESH

Operation Flood to raise milk production

LUCKNOW

AN outlay of Rs 50 crores has been assigned to Uttar Pradesh for implementing the Operation Flood-II—the most ambitious programme of integrated dairy development in the country. An agreement to this effect has been signed between the Indian Dairy Development Corporation, The National Dairy Development Board and the State Government.

Dr V. Kurien, chairman of NDDB/IDC has also agreed to release Rs 5 crores to UP for reorganisation and revitalisation of dairies in Meerut, Moradabad, Kanpur, Lucknow and Varanasi on a priority basis. According to Mr Sanjay S. Minister of State for Forest and Animal Husbandry, more funds

leased on ad hoc basis pending preparation of a perspective plan. Details of the special project to 25 districts of the State.

The districts which will comprise the project area are: Agra, Mathura, Kanpur, Lucknow, Meerut (including Ghaziabad), Rae Bareilly, Mathura, Mirzapur, Saharanpur, Unnao, Ballia, Etawah, Moradabad, Varanasi, Aligarh, Bara Banki, Faizabad, Etah, Farrukhabad, Ghazipur, Muzaffarnagar, Rampur and Jaunpur.

The Operation Flood-II programme envisages the increase of milk production from the present 2 lakh litres a day to 97.5 lakh litres a day by the project area by employing inputs through 5,340 dairy cooperatives. The existing collection centres in the project will first be converted into Anand pattern dairy cooperative societies.

About 12.7 lakh milch animals are expected to be brought under the Operation Flood ambit and the technical assistance programme. Of these, about 10 lakh animals will be covered under artificial insemination and 2.7 lakh under average milk procurement by dairy cooperatives in the project area. It is expected to be around 9 lakh animals at the end of the project period.

It is also proposed to increase the existing processing capacity of 10 lakh litres a day in the project area to about 10.30 lakh litres per day by the end of the project period. The project also includes marketing of 22 class I towns having populations of more than 100,000 in the State. Liquid milk and milk products such as ghee, butter, skimmed milk, whole milk powder in tins and consumer pack would be made available at reasonable prices.

The Minister added that the perspective plan was being finalised and its implementation would start in 1983, yielding better results after about six months. Utmost effort would be made to make the dairies in the project area viable, which had suffered a cumulative loss of about Rs 13 crore so far.

The main activities of dairy development sector in UP are: organising activities for enhancement of milk production and its regular collection from rural areas, processing of milk and developing an efficient infrastructure for the market-

AS I SEE IT

An appeal to managing directors

THE forty-eighth annual report of a private sector company has 59 beautifully printed art paper pages. The layout of the pages has been done in a manner so as to promote the readability of the accounts and the reports. All those connected with the production (I am not referring to the accounts, the evaluation of which is outside the purview of the present article) and printing of the report deserve high compliment for their excellent performance. Including the front cover there are fourteen pages of multi-coloured reproductions, very attractively done. These are certainly very pleasant to look at as the art paper pages are comfortable handling. All these represent a very high expenditure. To be sure, high expenditure by itself does not become questionable: for sometimes incurring a high expenditure becomes imperative in the interest of the promotion of an enterprise or a business. What is the objective in this case?

The document containing the annual accounts of a company retains interest and relevance to the recipient for the few days, which extend to about three weeks that intervene between its receipt and the holding of the annual general meeting of the shareholders of the company. Thus there is no functional need of the art paper used in a company's annual accounts. Few

shareholders retain their copies after the annual general meeting and—because of the practical difficulty in attending the annual general meeting when, as it so happens, it is held away from a shareholder's usual place of residence—many indeed shed them long before the meeting is held. The document is perhaps maintained as a record in the registered office of a company and in one or two other places. Is it necessary to go in for highly expensive art paper to print reports of purely ephemeral utility? The question arises with still greater force about the advisability of multi-colour illustrations in such reports. The annual report goes to a committed person—a person who is already an investor in the company. His principal concern is dividend and not the photographs in an annual report.

The argument may be offered that a company, whose shareholders are spread all over India (as is generally the case with big companies) may like to convey to its shareholders some idea of how its premises look or its products look. Indeed there may be genuine curiosity among many shareholders about such matters. In such communication the use of multi-colour illustrations certainly adds to the effectiveness of the message. This objective can be achieved by the publication of a separate brochure which will re-

main relevant for a few years instead of for a few days. Divorced from the mystifying statistics, such a brochure would indeed be useful even as a general reading material not only for the adults but also for the children.

The annual report of a leading public sector unit for 1981 includes illustrations which have not much to do with its work. Not less than 75 of the total 112 pages have multi-coloured reproductions which do not add anything to the utility of the annual report. On the other hand the publication of these photographs in a separate volume could have made for a good book on contemporary Indian handicrafts, which anybody would be glad to receive as a memento from the organization.

Many companies—both in the public sector and in the private sector—have adopted this wasteful practice—taking a cue from the foreign corporate giant sometimes even disregarding their financial condition. Thus a public sector company which during 1980-81 earned a post-tax profit of just 3.5 percent on the capital employed also resorted to this gimmick of producing multicolour 19 pages in the annual report for the year. Perhaps this complete unconcern for cost and effectiveness is what pushes so many units to be in the red.

Subhash Chandra Sarker

SPECIAL REPORTS

ing of milk and milk products in urban area.

The dairy development programme is the State is being built upon the foundation of a three-tier cooperative structure comprising primary milk producers, cooperative societies at the village level, milk producers cooperative unions at the district level and Pradeshik cooperative Development Federation at the

state level. Before the start of the planned economy, only Rs 32.34 lakhs had been spent on dairy programmes. During the various five-year plans and annual plans, Rs 22.34 crores had been spent until the end of 1981-82.

The physical progress and the achievement with the above investment under the cooperative sector are indicated in Table 1.

Table 1 : Physical target and achievement

Plan period	Number of milk union	Number of plants in operation	Installed capacity in lakh litres of plant	Milk handled (Lakhs litres per day)	Number of Societies
1967-74	37	12	2.14	1.087	2,866
1974-78	23	22	2.96	0.95	4,807
1978-79	37	24	5.01	1.36	4,772
1979-80	37	24	5.01	2.135	3,171
1980-81	37	26	5.24	1.970	3,171
1981-82	37	26	5.24	2.500	3,171*

* Reorganised

Source : Planning Department, UP Government

Most expensive office rentals in Hongkong

From M. P. GOPALAN

HONGKONG

HONGKONG is the most expensive city in terms of rentals for offices. At US \$5-6 per square foot a month, for airconditioned office space in first-class commercial buildings in the prime central district, Hongkong has already overtaken New York, London and Tokyo. These are findings of the latest annual survey conducted by Richard Ellis, a London-based property consultants group.

The survey, however, seems slightly out of date as far as Hongkong is concerned. It was undertaken in the first quarter of this year, conclusions formulated and published in the second quarter. During these months, the colony witnessed a significant growth in the supply of office space. Numerous commercial buildings became ready for occupation; quite a few offices moved out of the central area to take advantage of lower rents in distant localities.

The Mass Transit Railway, one of the most modern and efficient underground transport systems of its

kind operating 18 hours a day at a 3-minute frequency, has brought central district minutes away from a few busy centres of the colony.

Unofficial foreign currency rates in Hongkong (Hongkong \$ as on Sept. 18, 1982)

	High	Low	T.T.
Australian \$	5.855	5.81	5.9425
Belgian Franc(100)	12.00	11.00	12.910
British £	10.50	10.28	10.530
Burmese Kyat(100)	25.00	15.00	
Canadian \$	4.96	4.92	5.0195
French Franc	0.87	0.85	0.8760
Indian Rupee(100)	56.00	53.00	64.05
West German DM	2.445	2.410	2.4735
Indonesian Rupiah (100)	0.900	0.870	
Italian Lira (100)	4.45	4.20	
Japanese Yen (100)	2.330	2.310	2.3590
Korean Won (100)	0.75	0.670	
Malaysian \$	2.600	2.56	2.6235
Netherlands Guilder	2.230	2.200	2.2630
New Zealand \$	4.43	4.33	4.5150
Pakistan Rupee (100)	4.30	3.80	51.15
Philippine Peso	0.695	0.670	0.7235
Singapore \$	2.835	2.790	2.8520
South African Rand	4.50	4.20	5.3595
Sri Lanka Rupee (100)	27.00	22.00	
Swiss Franc	2.870	2.830	2.9195
Taiwan \$ (100)	15.00	14.70	
Thai Baht (100)	26.95	26.50	

Sikkim: Khadi & village industries get a home

GANGTOK

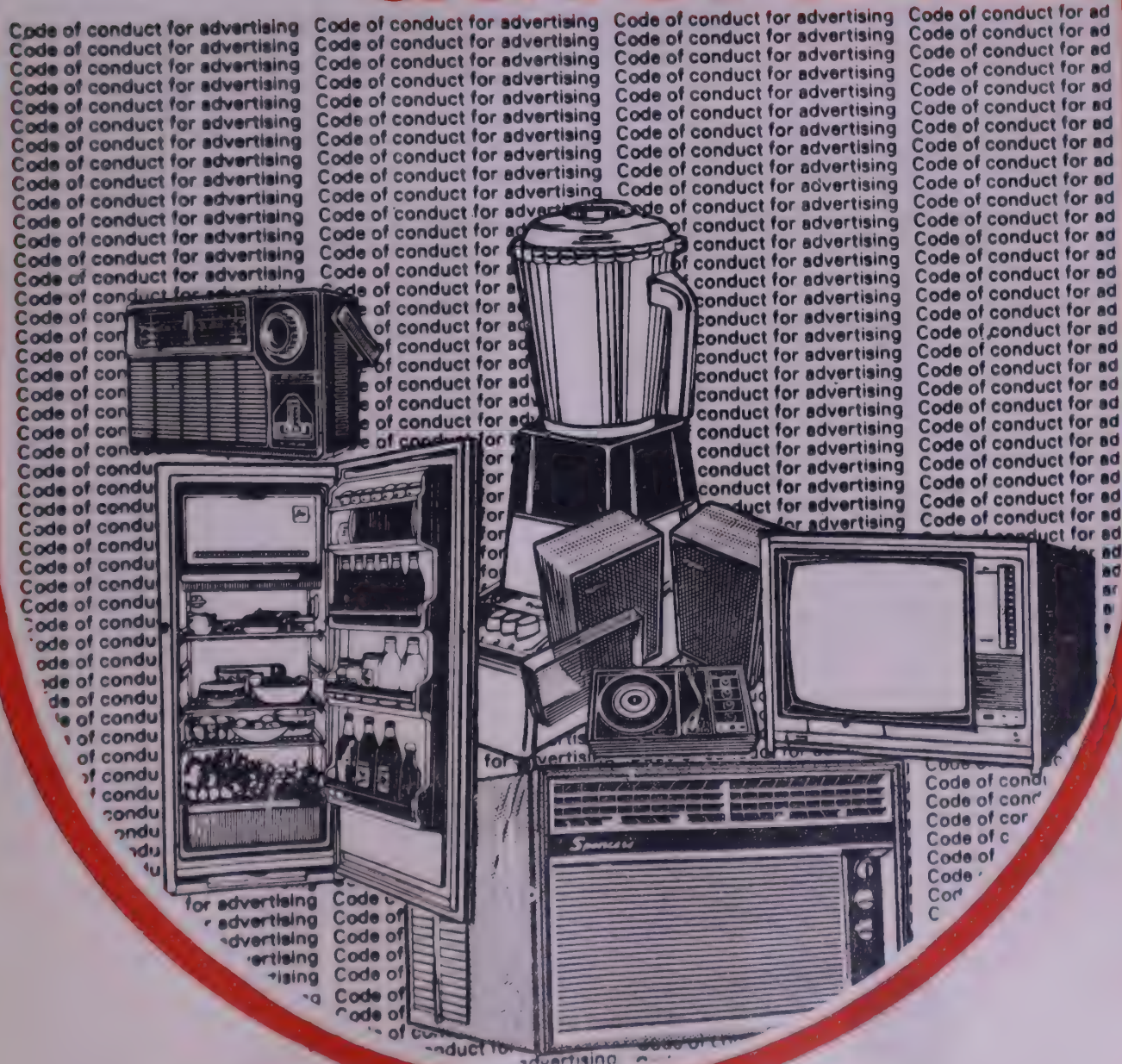
A NEW premises for the Khadi and Village Industries Board were opened at Martam in Sikkim recently. Mr Homi J. Taleyarkhan, Governor of Sikkim, speaking on the occasion, felt confident that promotion of khadi village industries at Martam will be able to provide job opportunities to more rural persons and also satisfy the need for cloth of the area.

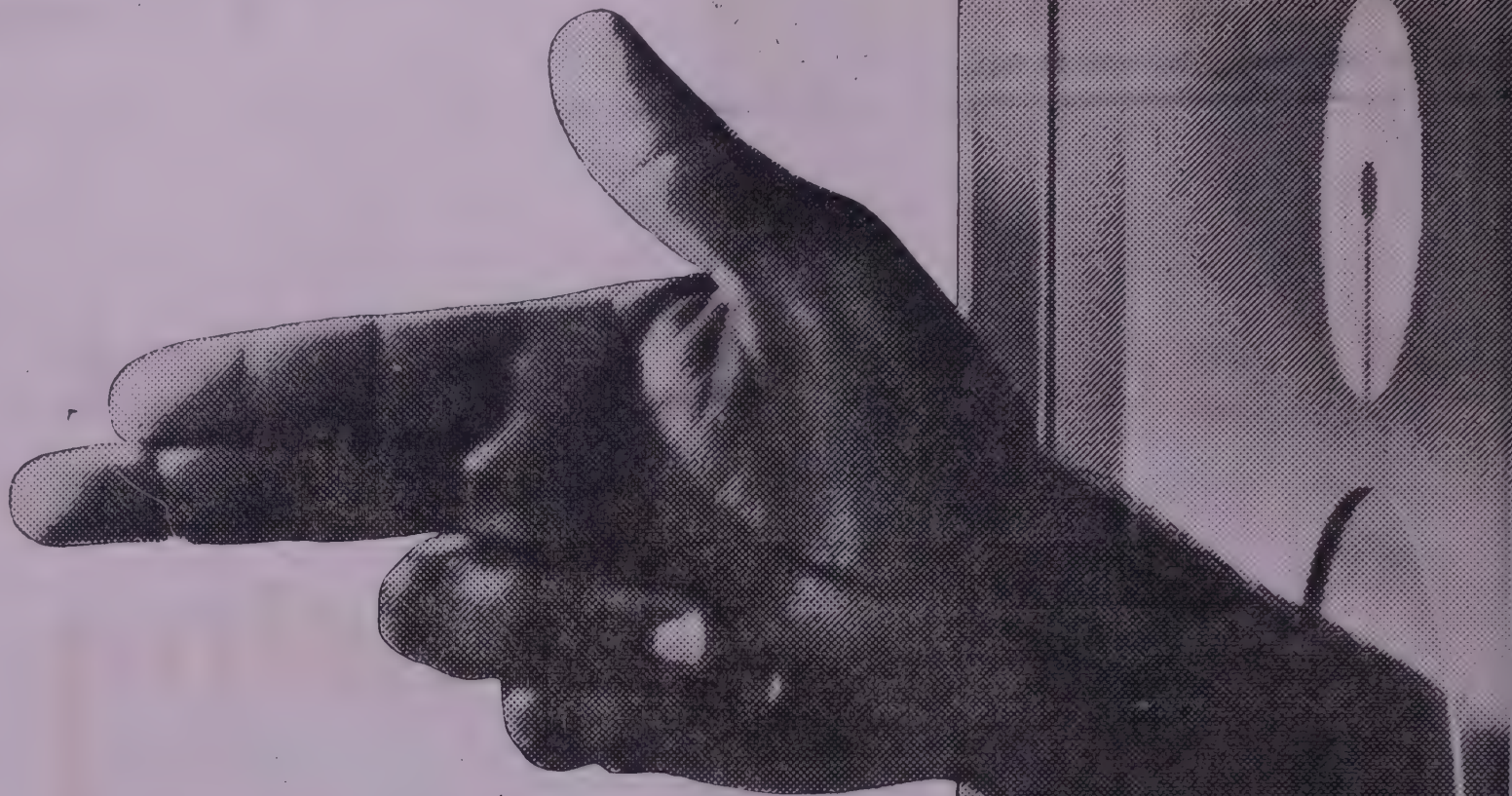
These factors and the sudden increase in the supply of office space have brought rents down by 20 per cent in the prime central district.

However, the Richard Ellis survey, which covers cities where property consultants have business interests, remains an informal document. The prime office market in Tokyo is experiencing continued growth of demand, says the survey. "There has been a steady rise in letting market for offices. Estate companies in the category which own and manage office properties have been showing large profit gains. A major factor in this profitability has been income from building leasing. For example, subishi Estate Co recorded income of 100,000 million yen from the market sector in 1981. Their current year's revenue is likely to be 11 per cent higher. The growth should continue for at least the next two to three years, as it is exceedingly difficult to secure land for office building construction."

Singapore has become one of the largest foreign investors in Australian property, according to the survey. Singapore, Malaysia and Indonesia have shared in the growth of the property market while Hongkong has levelled somewhat, says Richard Ellis. Shortage of office space continues in Singapore and Kuala Lumpur and is likely to persist for the next 18 months.

Code of Conduct for advertising





How to get away with Rs. 6000 without breaking the law.

Go ahead and add Rs. 6000 to your tax-free income. It's perfectly legal.

The exemption limit on income from bank deposits has been raised from Rs. 3000 to Rs. 4000.

And now a further exemption upto Rs. 2000 is available on income from bank deposits of one year and above. So you get total tax relief on interest from bank deposits upto Rs. 6000 a year. That's including income from other specified investments under Section 80L of the Income Tax Act.

From Rs. 3000 to Rs. 6000. That's quite a jump, isn't it? So what's holding you up? Cash in on this immediately.



State Bank
Security is a warm feeling



ADVERTISING

Need for self-regulation

By

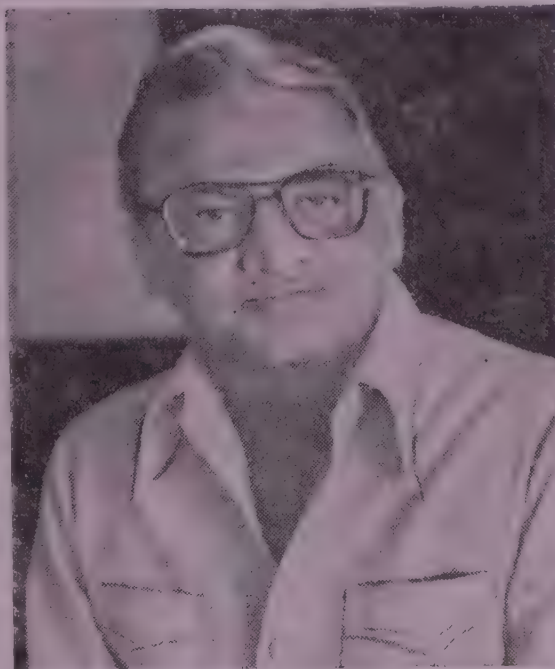
HARISH MAHINDRA

ADVERTISING is one of the most effective means of communication addressed to the public. In India, advertising expenditure constitutes a miniscule percentage of national income such as 0.164 per cent, whereas such expenditure works out to about 3 per cent or more in the developed countries. Assuming our national income is about Rs 100,000 crores, our overall expenditure on advertising is likely to be Rs 164 crores. If this expenditure goes up to even 1 per cent, our aggregate advertisement outlay will be about Rs 1,000 crores. This tells us about the future dimensions in Indian advertising.

The time has come to talk about the cost-benefits of advertising and the effectiveness of an advertising campaign. Every rupee spent on advertising should bring in as much return as investment in machinery or any other cost centre. There are several ways of going about making advertisements effective. It is in this setting, one has to enquire whether they can be made effective by any means, especially by pandering to the poor tastes of the public. My answer should be and is an emphatic No.

Advertising profession practically everywhere has codified the ethical practices and regulations which the practitioners have to adhere to.

We in the Indian Society of Advertisers (ISA) have made it mandatory that advertisers should adhere to the Society's own internal code of ethics. We have also the Council for Fair Business Practices (CFBP) which is championing for the past 1½ decades the cause of fair exchange between businessmen and consumers. The CFBP also stipulates strict adherence to the council's code of ethics amongst its mem-



bers. The council has been organising a movement to counteract duping and trickery by unscrupulous businessmen. Apparently, nevertheless, we still have a very long way to go in suitably dealing with what are called objectionable advertisements, especially in respect of products, such as, cigarettes, baby foods, physical health products and services, armaments, liquor, hair oils for curing baldness, increasing a person's height, for sexual potency and perhaps for libido itself. I myself have received several complaints against what are termed as misleading and fraudulent advertisements.

It is in this context, I must urge the Indian advertising profession to promote a code of ethics so that advertising is not referred to in pejorative terms. We must also bring in decency in advertising if we do not want the public to get a wrong image of advertising. I have said it in the past and I would like to repeat that the fear of the consumer is the beginning of wisdom in an advertiser. More importantly, victories in the market employing sex and other baits and blandishments will prove to be pyrrhic in nature with all costs and no benefits. What is worse they will in due course prove to be counter-productive.

Practically everywhere in the world both in the advanced and developing countries, there has been a common problem of promoting good advertising and deterring bait advertising. I have been looking at advertisements in some of the best newspapers and periodicals. I have found that in order to be persuasive, it is definitely not necessary to debase them or to inject sexual explicitness. What indeed makes them effective, are intelligence, beauty, personalisation and even sensationalism, without pandering to poor taste.

It would be highly puritanical to say that sex should be completely banned in advertisements and you know the definition of a puritan: a puritan is one who opposes bull fighting not because it causes pain to the bull but it brings pleasure to the spectators.

This does not mean that sex should be totally absent in deference to the puritan's views. I would advocate brinkmanship in this respect—a general hint rather than an explicit revelation.

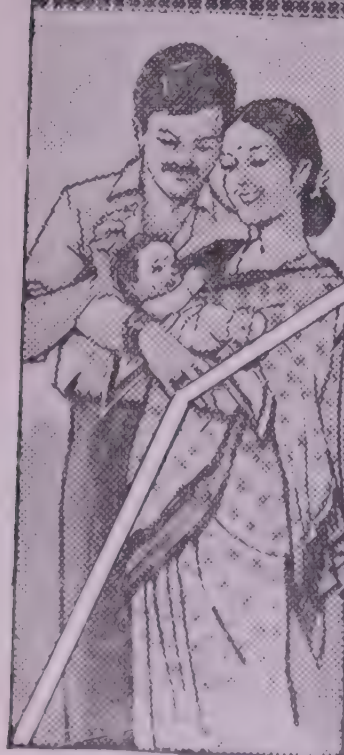
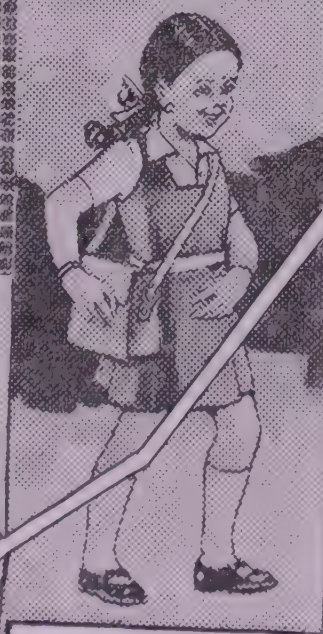
If one were not to stand on prestige, perhaps we could merely cancel out the name of the Advertising Standards Authority (of UK) and insert the name of an equivalent Indian authority and adopt ASA's code as our own inasmuch as I find there could hardly be any differences of opinion amongst professionals as regards the general rules mentioned here, beginning with 'all advertisements should be legal, decent, honest and truthful'.

It is appropriate in this connection to recollect the findings of the attitudinal survey on advertising undertaken by the ISA in 1980. The survey is not entirely frightening and there are even amongst Members of Parliament who agree that advertising need not be like the ill wind that does not blow anyone any good. The survey emphasised the need for self-regulation if we have to keep off outside intervention and control.

This is an edited version of Mr Mahindra's inaugural speech and summing-up of discussion at the workshop on 'Code for Self-regulation in Advertising' organised in Bombay last April. Mr Mahindra is the Chairman of Mahindra Engine.

Continued on page 7

your progress in life



Secure it with adequate Life Insurance cover at every stage

You require adequate life cover to meet life's growing demands. And you have a wide range of LIC policies to choose from.

These will help you take care of your increased responsibilities. Keep step with your rising stature and income. Meet specific needs, such as children's education, start-in-life, marriage and your own happy retirement. And keep your family completely protected all the while.

Besides, the premiums you pay entitle you to **substantial tax benefits** related to **income-tax, estate duty, wealth tax, etc.** Let Life Insurance also help you plan your estate to your maximum advantage through the provisions of the **Married Women's Property Act**.

Review your Life Insurance cover today. Talk to your LIC agent or the officer-in-charge of the nearest LIC office.



Let your Life Insurance grow with your needs.
Life Insurance Corporation of India

Commitment to norms

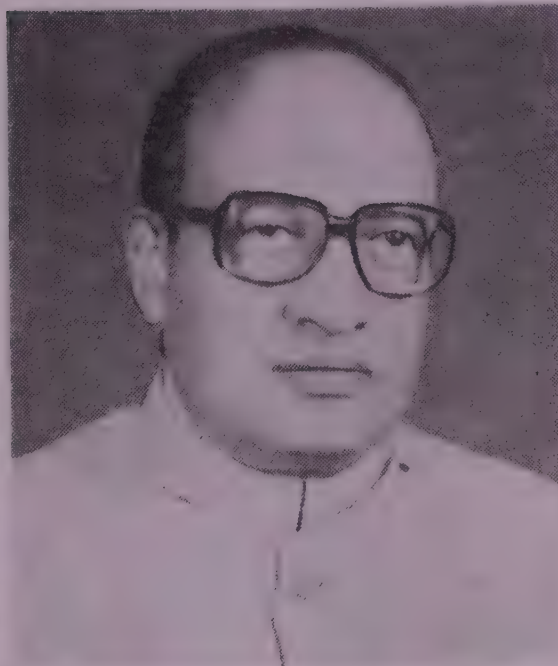
By

RAMKRISHNA BAJAJ

I am happy that the Advertising Club of Bombay has decided to initiate this for voluntary self-regulation in advertising in our country. I have been personally associated, over the past 16 years, with the Council for Fair Business Practices,—which, as you all would be aware, has been trying, since its inception in 1966, to further such efforts. When I was invited to participate in the panel discussion organised by your Club in July of this year, I had also suggested that we should consider whether an organised effort should be made for inculcating self-discipline in advertising. As I have been a participant in the movement for self-regulation, it gives me great satisfaction to associate myself with these deliberations. I am also glad that the India Chapter of the International Advertising Association is collaborating in these efforts as many countries in the world have already established self-regulatory machinery in this field and their experience could be of great help and relevance to us.

In the present consumer age, characterised by rapid technological changes and mass production of goods, business cannot function in isolation as its operations vitally affect social well-being. In the initial period of industrialisation, businessmen tended to regard the pursuit of business, untrammelled by any consideration other than that of profit, as the be-all and end-all of their activities. However, the need for regulation of business is generally recognised on all sides. But, here, the basic question is: how to fulfil the purpose of regulation without stifling initiative and enterprise which are the mainsprings of economic activity?

I need not labour the point here that the traditional method of regulation—viz. government imposing controls and restrictions on production, pricing or distribution—has proved to be self-defeating as it generates evils that are worse than those sought to be curbed or corrected. There is also a widespread realisation that such attempts at bureaucratic regulation result in stunting the growth of the economy and also entail enormous administrative costs that are ultimately passed on to the consumer. Even the leading communist countries, like the Soviet



Union and China, are therefore trying to mitigate the rigours of excessive bureaucratic regulation of their economies—of course within the overall framework of their doctrine. In India, too, we seem to have realised the wasteful futility of the earlier attempts to impose administrative controls and restrictions on the economy practically at every stage. The recent attempts, though halting and half-hearted, at policy liberalisation, by lifting controls on pricing or distribution of such items as cement and steel, are the significant pointers in this direction.

The only alternative to bureaucratic regulation is self-regulation. We have therefore to voluntarily exercise self-discipline by formulating codes of conduct in different fields and evolving an effective mechanism for their enforcement. This would also enable the Government to dismantle further the regulatory apparatus and strengthen the trend towards liberalisation. Such codes, moreover, are preferable to legislation because of their adaptability to changing situations and new demands. Besides, as they essentially comprise certain broad guidelines for judging the conduct, they allow for flexibility of interpretation within different contexts and can be subject to constant review in the light of changing social and market conditions.

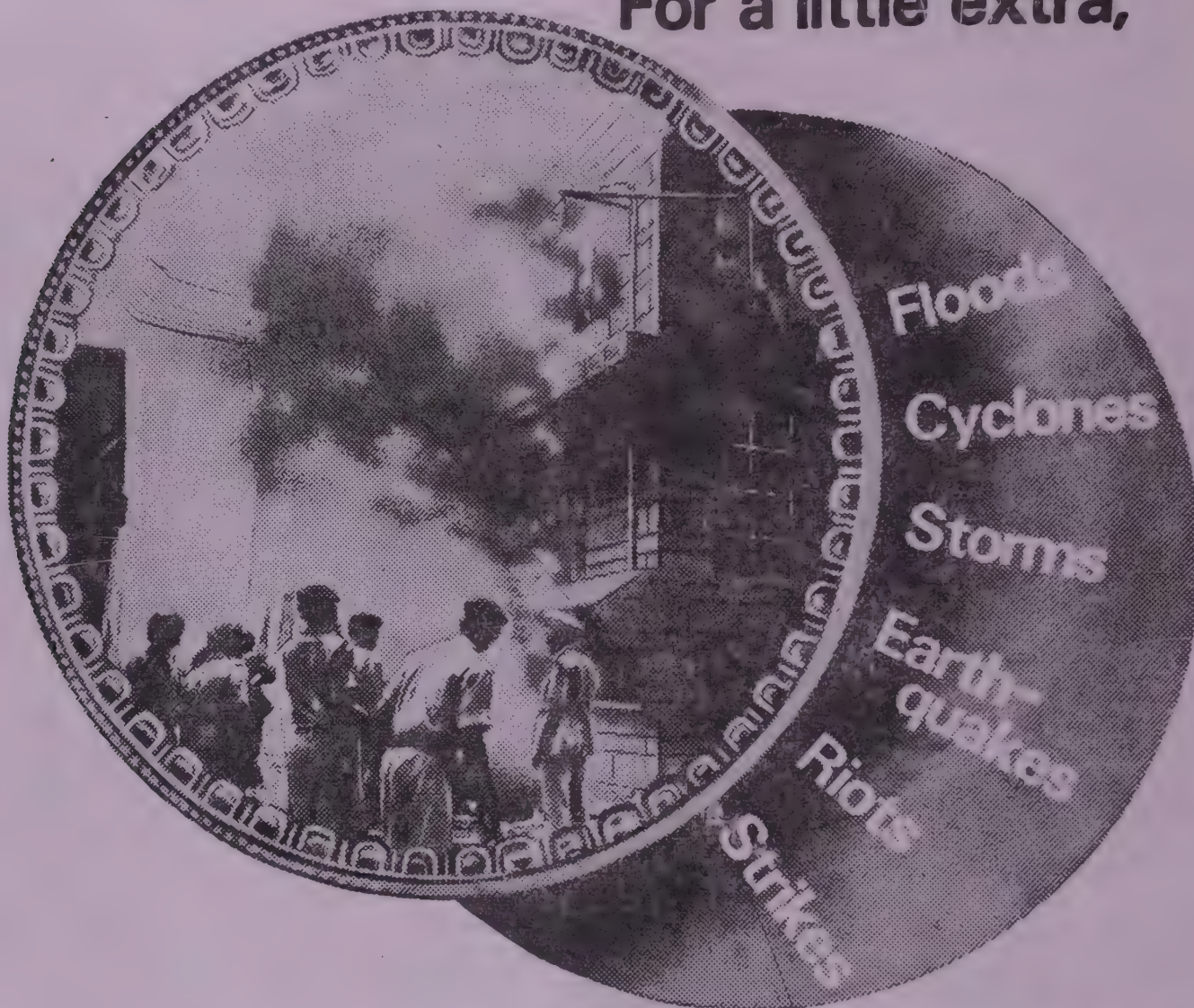
The International Chamber of Commerce is trying to promote self-discipline

in business in two different ways. On the one hand, it is trying to assist different international institutions or authorities in their efforts to promote self-discipline in business. For example, it is now trying to elicit views of its different National Committees and evolve a consensus on the "Draft Code of Conduct for Multinationals" which the U.N. has formulated. Similarly, the European Economic Commission (EEC) is now issuing directives or regulations in the marketing area—like those unfair advertising, food and pharmaceutical labelling, etc. ICC, with the help of its National Committees, is drafting comments on EEC draft texts which should help EEC to understand the business viewpoint and modify them suitably before finalisation.

Apart from these, ICC has, on its own taken important steps in this field. Way back in 1937, it formulated the "International Code of Advertising Practice" which has been thrice updated (in 1949, 1955 and 1966). It has been adopted by over 200 organisations in about 30 countries and is increasingly used as a reference document by the courts. In 1971, ICC published the "International Code of Marketing Research Practice" which has been adopted by over 80 organisations in a dozen leading countries. Subsequently, in 1973, ICC published the "International Code of Sales Promotion Practice" and also established the International Council on Marketing Practice to administer, on the international level, these three Codes. Since last year, ICC is engaged in drafting "International Guidelines for Advertising to Children" which seek to elaborate the relevant provisions of the ICC Code of Advertising Practice and provide a detailed interpretation of the Article 13 which is relating to children and young people. These draft guidelines enjoin, for example, that advertisements directed to children should not appear to condone violence, undermine social values or the authority of parents; they should not bring children into unsafe situations, or include direct appeal to children to persuade others to buy the product for them, or mislead them regarding size, value or performance of the product. The guidelines further enjoin that these advertisements should not encourage excessive consumption of the product by children.

Did you know?

For a little extra,



**your Fire Insurance Policy
can protect you in case of
other calamities too!**

General Insurance offers you insurance covers for damages caused by floods, cyclones, storms, earthquakes, riots, strikes and a host of other natural and man-made calamities. Though these covers are not independent policies by themselves, you can include any or all of them in your

Fire Insurance Policy at very little extra cost.

Come, take a fresh look at your Fire Insurance Policy. Or take out a new policy if you don't have one. Now, when things are normal. Tomorrow may be too late! Get in touch with any one of our subsidiaries listed below.

- National Insurance Co. Ltd., Calcutta
- The New India Assurance Co. Ltd., Bombay.
- The Oriental Fire and General Insurance Co. Ltd., New Delhi
- United India Insurance Co. Ltd., Madras.



**General Insurance
Corporation
of India**

particular area has been selected for elaborating guidelines as advertisement directed to children has recently been the subject of much comment and discussion worldwide.

Advertising today has also outgrown its original function of conveying information and has become a potent instrument of massive and skillful persuasion which moulds the minds and conditions the attitudes of the people. It has therefore naturally come to be regarded as "the most important moral influence" in our society. Naturally, no society can permit so powerful a force to operate without a commitment to certain standards and values. In advanced industrial societies, the average consumer is educated and advertising has been a topic of debate and criticism for the past 200 years.

Right from the times of Samuel Johnson who, in 1758, asserted that "Promise—large promise—is the life of advertising", to the recent past (in 1960) when Prof. Galbraith caustically remarked: "selling of goods requires well-considered mendacity", the consumer in the West has been constantly warned that advertisements contain an element of exaggeration and, therefore, their claims should be regarded with a degree of caution.

In India, on the other hand because of the widespread lack of education, advertising has a disproportionately greater impact and influence. The need for self-restraint on the part of the advertiser here is therefore all the more evident and urgent.

There are essentially two types of advertising: one is industrial advertising relating mainly to the selling of machinery, transport or other equipment. The other type is consumer advertising used for promoting sale of goods and services desired by the common consumer. It is in the second field—that of consumer advertising—that should be accorded priority in self-regulation. Here, again protection of health and safety should receive prime consideration, and no advertisement or labelling should contain any information or statement that would, knowingly or unwittingly, endanger them. It is not without significance that the first regulatory measure in this field in the USA, the Pure Food and Drugs Act, was passed early in this century (1906) only because of the damage to health of incautious consumers caused by some of the patent medicines which were being advertised as cure-alls by the manufacturers.

Another related problem that needs to be tackled is that of "truth in advertising". Though advertisements may contain "fragments of truth" and the claims made may be somewhat exaggerated, a line has to be drawn which would

help distinguish harmless promotional and, therefore permissible, exaggeration from "untruthful, deceptive and misleading" advertisements. This concept of "truth in advertising", though an essential part of self-regulation, is not so easy to define or implement. But we have to formulate criteria or guidelines which should help judge the issues involved in any particular case.

Advertising has to take into account the beliefs and value-system as well as the notions of decency prevailing in a society at any given time. The charges about women being used as sex-objects, or advertisements being sexually suggestive, fall within this area and are difficult to adjudge. In the 1930s, in India, even a portrait of a well-dressed, but drenched, woman published in a leading and respected magazine in Maharashtra had provoked loud protests from traditionalists, and publishing family planning literature or advertisements of birth-control contraceptives was regarded as a criminal offence. With the passage of time, social beliefs and ethos undergo changes and what was once objectionable becomes quite conventional today. However, in this field, we need not blindly imitate Western modes and models, and it would be better if we try to respect and incorporate as far as possible our traditions and age-old values in advertising practices. In formulating guidelines, this area therefore needs to be tread carefully and we should try to avoid both the extremes of becoming prudish or unnecessarily offensive.

Compared to the situation in advanced industrial societies, advertising in India is still in its initial period. It is not so dominant or aggressive as in the West. Because of its formative stage, it would be easier for us at this stage to take care and ensure that it observes certain restraints and does not become raucous, dominant and aggressive. Secondly, we can also try to ensure that in promoting their products vis-a-vis those of their competitors, advertisers do not resort to blatant over-statements, of the claims on behalf of their respective products. If we all decide to avoid such over-statements, no one will be affected or feel compelled to resort to this method. For this, we will have to exercise a little restraint and use some imagination. But it will help obviate the need for competitive over-statements which are likely to mislead the consumer. If we do not adopt such self-restraint, the government will ultimately be forced to step in with legislative measures to regulate advertising—which, in the long run, will do more harm than good.

Lastly, unlike businessmen, the advertising community is comparatively small and well-knit. It should therefore be amenable to self-regulatory efforts without much difficulty. As a follow-up measure of these deliberations, I would therefore suggest, a compact committee may be set up to study the codes formulated in different countries and, on the basis of such a study, to formulate a code which would be relevant to the situation obtaining in our country. This committee may also apply its mind to decide as to how best to propagate the code so formulated and secure acceptance for it from advertisers, advertising agencies as well as the media, and also decide how to set up an institutional machinery for monitoring the conduct of all concerned.

Advertising is not a "social waste", as is frequently alleged, but a necessary service and is an integral part of the industrial system. By codifying norms of advertising practices we are trying to make advertising a profession and committing ourselves to the obligations that are inherent in the power it confers on us. In this endeavour, I wish you every speed and all success.

Text of the Speech delivered at the Workshop on "Code of Self-Regulation in Indian Advertising" organised jointly by the Advertising Club of Bombay and International Advertising Association, India Chapter on April 17, 1982

Need for self-regulation

Concluded from page 3

I will sum up by saying that there is an overwhelming need to evolve a code of ethics to govern advertising. In the comity of advertising countries, the absence of such a widely accepted code in India is too conspicuous for comfort. This is not to deny the earlier efforts, even if pussy-footed we made in evolving such a code under the auspices of the Advertising Council of India. It is high time that we institute an organisation, put some teeth into it so that it acts as a deterrent to those who indulge in misleading advertisements.

Nobody likes government intervention in this area and imposing some discipline. I would request everyone to evince keener interest in reactivating the Advertising Council of India. There is nothing to beat self-imposed regulation and discipline which are preferable and superior to any code that may be imposed by any authority.

let's keep
our advertising
honest, truthful,
most of all,
decent.



Shilpi Advertising Limited
Bombay • Ahmedabad

(inspired by the excellent work done by the Ad Council,
USA and the Advertising Standards Authority, UK)

"CONSERVE ENERGY
& PROMOTE
NATIONAL WELFARE



**BHARAT PETROLEUM
CORPORATION LIMITED**

A GOVERNMENT OF INDIA ENTERPRISE"

MAHARASHTRA STATE FINANCIAL CORPORATION

MSFC MEETS THE TERM LOAN REQUIREMENTS FROM
RS. 2,000 TO RS. 30 LAKHS OF TINY, SMALL AND MEDIUM
SCALE INDUSTRIES FOR ACQUISITION OF FIXED ASSETS
LIKE LAND, BUILDING AND EQUIPMENTS FOR INDUSTRIAL
PURPOSES.

HIGHLIGHTS

- * Only 6% Interest for Loans upto Rs 50,000.
- * Concentration on Development of Backward and Developing areas
- * Decentralisation of Powers in order to expedite sanctions and Disbursement within minimum possible Time and Locally.
- * 'Development and Assistance Services Cell' for the Benefit of small Entrepreneurs.
- * Various Attractive Schemes to Suit all the Classes of Entrepreneurs.

For Further Details Please Contact

MAHARASHTRA STATE FINANCIAL CORPORATION

New Excelsior Building, A. K. Nayak Marg,
Fort, BOMBAY 400 001.

India Chapter of International Advertising Association inaugurated

The India Chapter of the International Advertising Association was inaugurated by Mr Hugh Holkar, world president emeritus, on April 16, 1982. Also present on the occasion were Mr Peter Thompson, director general, U.K. Advertising Standards Authority, Harish Mahindra, chairman, Advertising Congress, New Delhi, and Mr Rama Krishna Bajaj, former member of Council for Fair Trade Practices.

India's contact with the IAA goes back to 1940, the first two members being Mr Jagannath Narayan and Mr Harish Jain, since then India had been represented in IAA world congress by advertising personalities like Mr Harish Jain, Mrs Nuru Swaminadhan, Mr K. K. Kooka, Mr Ahmed Ibrahim, Mr S. S. Thirumalai, Mr Shyam Benegal, Mr Avinash Jain, Mr Dibendu Palit, Mr B. D. Sate and Mr C. B. Pereira. Some of these delegates either chaired or were key speakers at some sessions at the congress. Two of the delegates were winners of the IAA Youth Award. Mr Roger Pereira (1964 & 1965) and Mr Shyam Benegal (1966).

Chapter

In 1978, Mr Roger Pereira was elected to the World Council of IAA and to the board of directors in 1980. The certificate of authorisation to form the India Chapter was issued on October 6, 1981 by Mr J. J. Melvin, chairman of IAA, and convenor, Mr Roger Pereira. The India Chapter has set for itself major immediate objectives.

To help set up a self-regulation code for advertising in India.

To set up an advertising council to channelise public service.

Workshop on the code for self-regulation

As a first step in this direction, the Advertising Club of Bombay in collaboration with the India Chapter of the International Advertising Association conducted a workshop on the subject of self-regulation at the Taj Hotel on April 17 last.

Mr Hugh Holkar, chairman, International Advertising Association

Public Action Committee, and world president emeritus, outlined the self-regulation codes operating in many countries of the world. The code covers a wide range of subjects—consumer protection in general, comparison ads, food and health, infant formula, promotion, sexism in advertising, use of foreign languages, advertising for children, feminine hygiene products, advertising, abuse or overuse of tobacco and alcohol.

Mr Hugh Holkar advocated self-regulation codes in these areas rather than governmental legislation. He pointed out that self-regulation forestalled much more serious government legislation and that it also held the prestige of the industry.

Mr Peter Thompson, director general of the UK Advertising Standards Authority, dwelt at length on the British experience on advertising control. This covers the control of content by civil and criminal laws, and self-regulation. The laws had public backing and were in the nature of legal penalties and were not dependent on co-operation of parties concerned. Alternatively, self-regulatory controls had speed, scope, economy, flexibility and consumer trust besides preventing harmful laws.

Advertisements must not mislead or offend or obstruct fair competition. Sanctions against erring parties could be in the form of moral pressure, refusal by media to accept such ads, withdrawal of trading privileges, public exposure and finally, recourse to law. The code should be reduced to writing and well publicised.

The Advertising Standards Authority of UK gave advice, judged complaints and monitored progress. The ASA has issued two comprehensive booklets—The British Code of Advertising Practice and The British Code of Sales Promotion Practice. These codes, in general, cover legality, decency, honesty, truthful presentation, prices, use of the word "free", testimonials and endorsements, and avoidance of fear, superstition, violence etc pro-

tection of individual privacy and safety, children, comparison, etc.

Mr Subhash Ghosal, chief executive of Hindustan Thompson Associates, referred to the situation at present in India. The Advertising Agencies Association had succeeded in withdrawing an objectionable advertisement. He posed the question—should we regulate ourselves or wait for the government to regulate us?

Mrs Pushpa Motwani, honorary secretary of the Consumer Guidance Society of India, mentioned that in the din and noise of advertising the consumer's voice was feeble. Consumers should be protected against misleading advertising. The large per cent of illiterate population are the hapless victims of such deception.

Mrs Vimla Patil, editor of Femina, drew attention to the ads which were really unfair to women. The exploitation of the female form should stop, she demanded.

Mr R. K. Swamy drew the attention of the codes formulated by the Advertising Council of India as early as 1960, but which were not put into practice. The need of the moment was to revive these and take steps for the implementation of the codes.

Mr Justice S. C. Pratap said that as there were codes for legal, medical, and accountants' professions with parliament backing. Advertising also deserved to be regarded as a profession and it should have, therefore, a well defined code of its own.

Mr F. T. Korakiwala, president, Akbarally's group of companies, spoke of the necessity of a workable infra-structure for self-regulation in India.

Mr Parry Dholakia, president of the Advertising Club, Bombay, emphasised the need for quick action supported by all parties concerned. He emphasised the need for a strong determination to take follow-up action to evolve a code and held an effective infrastructure for self-regulation in India.

The war of the watchful

By

ROGER EGLIN

THE secret of the first Lord Leverhulme's success was his recognition that a ready market existed for neatly packaged, branded consumer products of consistent quality.

He applied the idea to soap, selling housewives wrapped bars of Sunlight instead of the coarse lumps of uncertain origin and quality they had been used to buying as soap. And on this base, he built an armoury of brands.

He realised that brand names were Lever's identity in the market, the consumer's guide to the product he or she wanted to buy. Without the brand names, the company was just one more anonymous manufacturer; consumers who wanted to buy the same product again would not know what to choose. And as the brands grew, so did their value and the risk that a competitor might steal their names and cash in on Lever's advertising investment.

So when countries began to set up the first trade mark registers, Lever quickly began to register those early brand names as trade marks. Today some of them, including the original Sunlight, are still household names. And the early lesson has not been lost on Unilever. Trade marks do not appear as an item on the balance sheet and their value is impossible to guess. But this value exists and there is no doubt about their importance. The group's strength rests on its brand names and the brand names in turn depend on a vigilant defence of trade marks.

The key role in this defence, in maintaining Unilever's international brands policy, lies with the company's International Trade Marks Department. With 25 staff in London and 16 more in Rotterdam, Hans Molijn, the department's manager, and his team are the guardians of Unilever's trade marks world-wide.

Trade marks are under constant threat. Rivals may make calculated attempts to infringe them. Other companies, often in completely different product areas, may trespass unwittingly on Unilever

trade marks. Shadowy operators resort to barefaced piracy, deliberately passing off imitations under Unilever brand names. The department has to be watchful, checking registers, watching the market place and, if necessary, taking preventative action against infringements and counterfeits.

The company that does not defend and use its brand names risks losing them. 'The protection of trade marks is of vital importance,' says Molijn. 'If your rights are threatened and you do not respond quickly, the strength of your trade mark is diluted. You must try and maintain the unique character of your trade mark.'

Molijn's department has to maintain close contacts with Unilever's coordinations. Each co-ordination has a list of brand names available for use and the trade mark department's main function is to check they really are available and to defend them.

It is a complicated job. International trade mark legislation is almost non-existent and marks may have to be checked country by country—and some of the countries themselves may have only the most rudimentary trade mark systems. 'With the exception of the Benelux countries which have a common system, all trade marks are territorially restricted,' says Molijn.

Though most countries have a trade mark register, their systems vary. Some have a deposit system which does not require prior investigations into proposed trade marks. Almost any mark can be registered, even if there is a similar one already on the register. 'Countries like France and Benelux have this sort of system and you only get something which is very uncertain,' says Molijn. 'Their registers are full of trade marks of doubtful value.'

Britain operates a different system where use, rather than registration, establishes a right to a trade mark and many accepted trade marks do not show, therefore, on the register. The German system is a mixture. The trade mark re-

gistry considers whether a mark is distinctive. The mark is then published in a list of those that have passed this test so that other parties have the opportunity to object.

Standards vary immensely. Molijn says the Brazilian mark authority can take five years to answer an enquiry. The US office is getting more difficult to deal with and makes more mistakes. Shortages of staff at the British Registry are creating lengthy delays. In some countries, where there are no systems of registration, mark owners have to resort to publishing cautionary notices. There are also a number of governments which are in the process of changing the existing protection of marks.

The pack's design or colour is often an integral part of the trade mark. The typical colour of the Lipton yellow-label tea is a good example. Many countries allow 'get-ups' to be registered. Unilever's policy is to limit the more important trade marks with some 80,000 registered world-wide, registering all trade signs would be prohibitively expensive. The fees alone cost something like £100 a registration, usually for ten years but in Britain for five. 'If you add it all together it is expensive and is getting more so,' says Molijn.

Defending trade marks can be costly as well. If any offence is spotted, the department tries to persuade and if that does not work goes to court.

'With many companies, misunderstandings about help can be avoided,' says Molijn. 'But with the more difficult ones, the French are keen to go to court. Our policy is to try and avoid this but we sometimes find ourselves in court several times a year in countries where Unilever is big.'

Deliberate infringement is the biggest nuisance. In the Middle East and countries like Korea and Hong Kong where counterfeiting of brands like

ilk happens frequently, track-down backstreet manufacturers stopping them is very difficult. erted in time, British customs seize counterfeit imports but countries are prepared to move decisively as this.

There are competitors ready to passing off something similar to existing brand name. 'We're keen on inspecting the market and registers,' says Molijn. 'If we were not so vigilant, I am sure attempts to infringe or imitate our marks would happen more of-

Many of the trade marks—Sun-Lux, Lifebuoy and Persil—have been in existence since the company's earliest days. Others, Lipton, have come through acquisitions. But there is a steady stream for new ones especially in ice creams and personal products where the range is constantly expanding. Finding new ones that are usable do not infringe someone else's mark is not easy, which makes close links between marketing and trade marks important. At one time Unilever tried using a computer to generate four- and five-letter words but results were neither particularly attractive, nor popular.

Trade marks have to be chosen with great care. Words like Superb and Splendid are not registerable in most countries. Nor are words that should be regarded as a generic name for the product acceptable. Manufacturers of Hoover electric vacuums and Biro pens spend time and money reminding people that these are trade marks rather than generic names. The typical successful brand name is a fantasy word with a distinct character of its own: Aspirin is a good example. At the worst, carelessness in selecting a name and name can mean the product being taken off the market.

The saga of Persil is a signal warning to anyone foolish enough to underestimate the complexities of trade mark legislation. Persil has a rather complicated history. In Germany, it was started and registered by Henkel, the detergent maker. Later per borate silicate, one of the additives in detergents. In France, Ronchetti had invented Le Persil and, in Britain, Unilever obtained the name through the acquisition of Joseph Crosfield & Sons Limited in 1909 which had acquired the rights to Persil for the UK from Henkel.

Eventually Unilever acquired the name in France from Ronchetti and the European Community (EC) was split: Unilever had France, the UK and Ireland and Henkel the rest.

Then France was faced with imports of Belgian Persil and Germany with imports of British Persil. To defend their trade marks, Unilever in France and Henkel in Germany took action against the importers. The importers then complained to the European Commission that the owners of the trade mark were splitting up markets between them. After long discussions, Unilever and Henkel promised not to attack imports of other Persil coming into their territories.

Since the beginning of the seventies it became clear that the EC was laying more emphasis on its aim of promoting the free circulation of goods within the Common Market than on rights to a trade mark.

Unilever was also influenced by an earlier trade mark decision, the Hag case, which had shattered the beliefs of many trade mark experts and underlined the EC's determination to give priority to the free circulation of goods.

Before the Second World War, the German Hag company had transferred the Hag trade mark in Belgium and Luxemburg to a Belgian subsidiary which had been sequestered and sold to another company after the War. The new owner of the Hag in Belgium, which was in no way related to the German Hag company, found out that products from Hag Germany were imported into Luxemburg under the Hag label. The European Court of Justice rejected the Belgian company's plea to stop this, claiming that the trade mark had a 'common origin' and that it would not interfere with the free movement of goods.

Within the EC, there is a strong move towards establishing generally acceptable trade marks that would guarantee the free movement of goods from country to country. But after more than a decade of effort, it is still doubtful whether a Community trade mark will develop. The first draft of an EC agreement in 1964 has been followed by more recent ones as well as proposals for the Council of Ministers.

Industry was not happy about the earlier proposals, says Molijn. There are some 1.8 million register-

ed trade marks in the nine Community countries (not counting Greece which has recently joined) and the EC's proposal that it would have overall authority with the established national rights disappearing after, say, 10 to 15 years, was not welcomed.

'To have demolished the national rights over a short period would have been harmful,' he says. 'It's certain now that the national rights will be retained. The policy has shifted now towards seeking harmony in national registration procedures.' How long this will take is uncertain. No-one expects real progress before 1985. Many think it will take longer.

Outside the EC there are few signs that international agreements will make the trade mark expert's job any easier. The Madrid Arrangement permits an international trade mark registration to be developed from a registration in one country but this convention has only some 20 signatories and the UK is not a member. However, it does make registration somewhat easier. By starting with a registration in the Benelux countries which have one trade mark law, it is possible to cover most of Europe by then applying for one international registration. Some of the Latin American countries—Bolivia, Colombia, Ecuador, Peru and Venezuela—have also harmonised as have the French-speaking African countries.

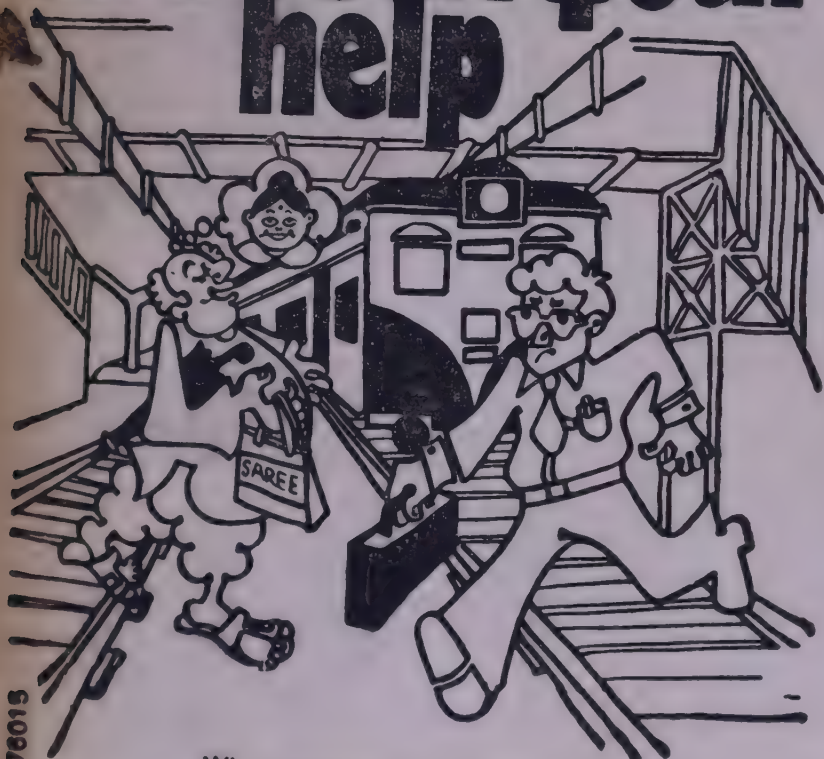
However, complicated the task, Molijn and his colleagues are ready to battle on behalf of Unilever's trade marks. There was a time when it seemed that the advance of 'own' brands and the 'generic' unbranded products would spell the end of brand names. Yet they are stronger than ever today.

They are vital, says Kees Knook from Marketing Division who specialises in consumer affairs and marketing legislation. 'If you look around the supermarket or watch television, you cannot really imagine how else you can sell products other than by brands'.

Knook believes brands help everyone. Retailers want them and ask what the company is doing to promote them. Consumers use them to identify products even if it is only to pick out the ones they don't want to buy. And manufacturers need them as well.

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DOCUMENT

Madhya Pradesh Specific Corrupt Practices Ordinance 1982

The following is the text of the Madhya Pradesh Specific Corrupt Practices Ordinance, promulgated by the Governor, on September 8, 1982:

N Ordinance to provide for punishment of specific corrupt practices resorted to by the persons acting in connection with the affairs of the State or of public undertakings or local authorities, co-operative societies or other institutions or organisations aided by State Government and by some other persons in their dealings with the State Government and aforesaid bodies, with a view to eradicate and effectively prevent such practices and for other miscellaneous matters connected therewith.

Whereas the State Legislature is not in session and the Governor of Madhya Pradesh is satisfied that circumstances exist which render it necessary for him to take immediate action;

Now, therefore, in exercise of the powers conferred by clause (1) of article 213 of the Constitution of India, the Governor of Madhya Pradesh is pleased to promulgate the following Ordinance:—

CHAPTER-I PRELIMINARY

1. (1) This Ordinance may be called the Madhya Pradesh Vinirbhakta Bhrashta Acharan Nivaran Ordinance, 1982.

Short title & extent

(2) It extends to the whole of Madhya Pradesh.

2. In this Ordinance, unless the context otherwise requires,—

(a) "local authority" means,— a Municipal Corporation constituted under the Madhya Pradesh Municipal Corporation Act, 1956 (No. 23 of 1956);

(ii) a Municipal Council constituted under the Madhya Pradesh Municipalities Act, 1961 (No. 37 of 1961);

(iii) a Panchayat constituted under the Madhya Pradesh Panchayat Adhiniyam, 1981 (No. 35 of 1981);

(iv) a Mandi Samiti constituted under the Madhya Pradesh Kishori Upaj Mandi Adhiniyam, 1972 (No. 24 of 1973);

(b) "officer" means a person serving in connection with the affairs of the State, public undertaking, local authority, co-operative society or any other institution or organisation aided by the State Government.

(c) "public undertaking" means a Government company within the meaning of section 617 of the Companies Act, 1956 (No. 1 of 1956) and includes a Corporation or other statutory body, by whatever name called, in each case owned or controlled by the State Government.

CHAPTER-II OFFENCES RELATING TO WORK

3. In this Chapter unless the context otherwise requires,—

(a) "construction" means all activities pertaining to the construction of a work and includes excavation, filling, levelling and other allied activities;

(b) "contractor" in relation to a work means a person who undertakes to execute the work under a works department, in pursuance of a contract and includes, where the context so requires, a sub-contractor and all other agencies and persons employed by him or working under him or under his control, for the execution of such work and the expression "works contract" shall be construed accordingly;

(c) "officer-in-charge" means an officer in relation to a work under a works contract who is primarily and directly responsible on the work site to see that the work or specific part of the work is duly executed in accordance with the terms, conditions and specifications of the works contract and the instructions, direc-

tions or work order issued by the supervisory officers or by the works department, from time to time;

(d) "officer of the works department" means the officer, whatever be the designation, employed in the works department and concerned with the survey, construction, repairs, maintenance, supervision, planning, drawing, designing, purchase, supply or storage of goods, mechanically propelled or electrically operated vehicles of all descriptions, plant, machinery, tools, spares or all other materials, or equipments and includes an officer or official responsible to make payment of bills and advances, in relation to the work;

(e) "supervisory officer" means an officer whose duty it is to supervise the work as per instructions contained in the Manual applicable to the works department or contained in any order or direction issued by the works department, from time to time;

(f) "work" means any work relating to survey, construction, repairs or maintenance of any building, superstructure, dam, weir, canal, reservoir, tank, lake, road, bridge, culvert, well including tubewell, factory, workshop, water supply system, electric installation system or any other work which the State Government may by notification specify in this behalf, and includes surveying, planning, drawing, designing, purchase, supply or storage of goods, mechanically propelled or electrically operated vehicles of all descriptions, plant, machinery, tools, spares or all other materials and equipments relating to the construction, maintenance or repairs of any of the aforesaid works;

(g) "works department" means a department of the State Government, a public undertaking, a local authority, or a co-operative society registered under the Madhya Pradesh Co-operative Societies Act, 1961 (No. 17 of 1961), which gives a works contract or under whose

orders, directions or control works contract is entered into or work is done, and shall include an institution or organisation substantially aided by the State Government, as the State Government may, by notification, specify.

Punishment of contractor for violation of contract etc

4. Whoever, being a contractor of a works contract entered into with a works department, intentionally, knowingly or for corrupt motive, executes the work in material violation of the terms of the contract or in flagrant disregard of the standards, specifications, orders or directions given by the works department or its officers so as to adversely affect the quality, workmanship, strength or life of the work or part of it, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment of officer-in-charge for lack of supervision

5. Whoever, being an officer-in-charge of a work under a works contract, being executed by a contractor or otherwise, intentionally or knowingly—(a) permit or connives at, or (b) omits to prevent or to report about, or (c) abets for corrupt motive, the work being done in (i) material violation of the terms of the contract, or (ii) flagrant disregard of the standards, specifications, orders or directions given by the works department or its officers, in either case so as to adversely affect the quality, workmanship, strength or life of the work or part of it, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for preparing false or fictitious muster rolls or measurement books

6. Whoever, being officer-in-charge of a work in connection with the relief work or otherwise (a) prepares a false or fictitious muster roll, or (b) false or fictitious measurement book, or (c) makes payment for false or fictitious lead or false or fictitious excavation of metal, sand, earth or (d) incorrectly classifies a strata under excavation for making payment at a higher rate, or (e) pays for no work or inadequate or for fictitious or bogus work, or (f) pays at rates that are grossly inappropriate or makes deliberate over payments in violation of rules and

orders, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for surreptitious sale of supplied material by contractor

7. Whoever, being a contractor under a works contract, sells or otherwise transfers cement, iron or any other material supplied by the works department for the work as per specifications, instead of properly utilising the same in the work or instead of returning the unused or excess material back to the works department, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for submitting manipulated tenders

8. Whoever, being a tenderer for a work under a works department, (a) procures or obtains or attempts to procure or obtain for himself or for any other person work under a works contract by submitting fictitious, competitive tenders in the name of false, or non-existent or bogus person, or (b) enters into a conspiracy with any other tenderer or tenderers in order to eliminate the competition for the purpose of pushing one of the collusive low-rate tender for acceptance, or (c) employs or takes active help of a near relative or of any other person in a position to unduly influence the officer having authority to accept the tender, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Explanation—Near relation in this section means son, grand son, father, mother, wife, brother, sister, brother-in-law, and father-in-law.

Punishment to officer for accepting manipulated tender

9. Whoever, being an officer of a works department, having authority to accept a tender on behalf of a works department, (a) abets the commission of an offence under section 7 by accepting or recommending for acceptance such tender, or (b) dishonestly manipulates evaluation of tenders with the object of giving benefit to a particular tenderer, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for wrongful or unauthorised disposal of property

10. Whoever, being an officer of a works department, dishonestly or fraudulently (a) disposes of or otherwise transfers (b) permits unauthorised use of goods, plant, machinery, tools spares or other material and equipment from the stores, causing substantial loss to the works department, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for supply of sub-standard or lesser quantity goods etc

11. Whoever, being a contractor for the supply of goods, plant, machinery, tools, spares or other materials or equipments (a) makes misrepresentation in respect to quantity supplied, or (b) supplies sub-standard goods, plants, machinery, tools, spares or other materials or equipments which are of mercantile quality or not in accordance with the samples or specifications given in the order of supply, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment of officer of works department for abetting offences under section 11

12. Whoever, being an officer of a works department, having authority to accept the supply made by the contractor in pursuance of an order of supply given to him, abets the offence punishable under section 11 knowingly by accepting the supply of goods, plants, machinery, tools spares or other materials or equipments shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for splitting up purchase orders

13. Whoever, being an officer of the works department, with a fraudulent intention resorts to splitting up purchase order in order to enable him to effect the purchases which would have otherwise been beyond the pale of his financial authority to do so, or in flagrant breach of established procedure for the purchase of goods, plants, machinery, tools, spares or other materials or equipments shall be punished with imprisonment of either description

h may extend to one year or fine or both.

CHAPTER III.

OFFENCES CONNECTED WITH FOREST PRODUCE

Punishment for illicit felling or disposal of forest produce

14. Whoever, being an officer in charge for the preservation and maintenance of forest or disposal of forest produce, having jurisdiction over the forest area, intentionally or knowingly permits, abets, or suffers on account of his omission to supervise, prevent or report the—(i) illegal felling of trees or logs, or (ii) illegal girdling or lappings, or (iii) theft of wood, bamboo or other forest produce, or (iv) quarrying of stones, or (v) burning of lime or charcoal in the area, for commercial purpose shall be punished with imprisonment of either description which shall not be less than one year but which may extend to three years and shall also be liable to fine.

Provided that the court may, for any special reasons to be recorded in writing impose a sentence of imprisonment of less than one year.

Punishment for falsification of bid-sheets and manipulation of transit passes

15. Whoever, being an officer in the works department,— (i) manipulates bid-sheets in relation to auction of forest produce, or (ii) manipulates issue of fictitious transit passes with a view to give benefit to any person or for causing wrongful loss to the works department, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

CHAPTER IV.

OFFENCES RELATING TO CLAIM OR AWARD OF DISPROPORTIONATELY EXCESSIVE COMPENSATION

Punishment for false or fictitious claims

16. Whoever, by misrepresenting facts, claims compensation for non-existent or fictitious property in the name of non-existent or fictitious persons or by giving false fictitious description of the property for grossly exaggerating the value thereof, in a matter relating to the acquisition of such property,

shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for award of disproportionately excessive compensation

17. Whoever, being an officer empowered under any law or by an order or otherwise directed to assess or award compensation for acquisition of property, dishonestly with a mala fide intention,—

(i) assesses or awards compensation which is excessive so as to be grossly disproportionate to the market value of the property so acquired, or in violation of any direction of law for the time being in force, prescribing the mode of calculation of compensation, or

(ii) assesses or awards compensation for the non-existent or fictitious property or to a fictitious person shall be punished with imprisonment of either description which may extend to three years or with fine or both.

CHAPTER V.

OFFENCES RELATION TO COLLUSIVE BIDDING AT PUBLIC AUCTION

Punishment for collusive bidder

18. Whoever, being a bidder at a public auction, enters into a conspiracy with the other bidders, so as to procure a Government licence or other contracts, including a licence for a liquor shop, at a significantly low rate, shall be punished with imprisonment of either description for a term which may extend to one year or with fine or both.

Punishment for sale of liquor unfit for human consumption

19. Whoever, holding a licence permit or pass for the sale of liquor, granted under the provisions of Madhya Pradesh Excise Act, 1915 (No. 2 of 1915), himself or through his agent, servant or any other person, inducts into the shop or sells or otherwise delivers to the consumer within the shop premises or outside, any liquor unfit for human consumption shall,—

(i) if death is thereby caused be punished with death or imprisonment for life or with imprisonment

of either description which shall not be less than 7 years but which may extend to 10 years; and

(ii) if it causes any other deleterious effect on the health of the consumer be punished with imprisonment of either description which may extend to 5 years and shall also be liable to fine.

Explanation: In this section the expressions used shall have the same meaning as assigned to them in the Madhya Pradesh Excise Act, 1915 (Act No. 2 of 1915).

CHAPTER VI.

OFFENCES RELATING TO REGISTRATION OF BOGUS FIRMS FOR SALES TAX EVASION

Punishment for applying for registration of or use of bogus firm name

20. Whoever, applies for the registration of a bogus or non-existent firm, or uses a bogus or non-existent firm-name, for the purpose of manipulating sales-tax evasion, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for registering bogus firm for abetting offence under section 20

21. Whoever, being an officer intentionally, knowingly or negligently, without holding proper inquiry, registers a bogus or permits the use of bogus or non-existent firms or non-existent firms name, with the intention to abet the offence under section 20, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

CHAPTER VII.

OFFENCES RELATING TO FICTITIOUS LOANS AND FALSE VERIFICATION OF THEIR UTILISATION

Punishment for advancing loans etc to fictitious persons

22. Whoever, being an officer having authority to sanction or advance loan or subsidy intentionally, knowingly, or for corrupt motive or otherwise, sanctions or advances loan or subsidy—(a) in a fictitious name, or (b) to a fictitious or non-existing person, or (c) in the name

of another person, and whoever receives actual benefit of such sanction or advance of the loan or of subsidy, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Punishment for false verification of loan utilisation

23. Whoever, being under a duty to verify and report proper utilisation of a loan or subsidy falsely reports, verifies or testifies to the proper utilisation thereof, with reference to the purpose for which it was sanctioned or advanced, when in fact it was not so utilised fully, or was utilised only partly, or was not utilised at all, in relation to that purpose, unless it was diverted to some other purpose with the prior sanction of authority which sanctioned or advanced the loan or subsidy, shall be punished with imprisonment of either description which may extend to one year or with fine or both.

CHAPTER—VIII

OFFENCES RELATING TO ILLEGAL COLONISATION

24. In this chapter, the expressions—

Definitions

(a) "urban agglomeration" shall have the same meaning as is assigned to it in clause (n) of section 2 of the Urban Land (Ceiling and Regulation) Act, 1976 (No. 33 of 1976);

(b) "a coloniser" means a person who, in a local area, after taking no objection certificate or prior permission in writing, as the case may be,—(i) under section 172 of the Madhya Pradesh Land Revenue Code, 1959 (Act No. 20 of 1959), (ii) under the Urban Land (Ceiling and Regulation) Act, 1976 (Act No. 33 of 1976); (iii) under the Madhya Pradesh Municipalities Act, 1961 (Act No. 37 of 1961); (iv) under the Madhya Pradesh Municipal Corporation Act, 1956 (Act No. 23 of 1956); (v) under the Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam, 1973 (No. 23 of 1973); from the respective authority competent to grant the same or from a Nazul authority in case the land is situate in a nazul area, divides the land into plots, with or without developing the area, transfers or agrees to transfer them gradually or all at a time, to persons desirous of settling

down on those plots by constructing residential or non-residential or composite accommodation and the expression "establishment of colony", "colonisation", "illegal coloniser" and "illegal colonisation" shall be construed accordingly:

Provided that no person shall undertake the establishment of colony unless he on payment of such fee as may be prescribed for registration of coloniser obtains a licence for colonisation from the Collector of revenue district in which the land is situate.

Provided further that, notwithstanding anything contained in section 172 of Madhya Pradesh Land Revenue Code, 1959 (Act No. 20 of 1959) mere omission to grant sanction for diversion of land within the period specified therein shall not amount to grant of sanction for diversion for the purpose of this Chapter.

Explanation — "Local area" means an area comprised within the limits of a Municipal Corporation, a Municipality, urban agglomeration, planning area notified under section 13 of the Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam, 1973 and the nazul area comprised in such areas.

Offence of illegal diversion of land

25. A coloniser who, in contravention of the provisions of section 172 of the Madhya Pradesh Land Revenue Code, 1959 (No. 20 of 1959) and the rule made thereunder, diverts the land or the part thereof, commits an offence of illegal diversion of land.

Offence of illegal colonisation

26. A coloniser who, before or after the illegal diversion of the agricultural land, divides it into plots with the object of establishing a colony, commits an offence of illegal colonisation.

Punishment for illegal diversion and illegal colonisation

27. Whoever, commits or abets the commission of an offence of illegal diversion or illegal colonisation shall be punished with imprisonment which may extend to three years or with fine or both.

Offence of illegal construction

28. Whoever constructs a building in an area of illegal diversion or illegal colonisation commits an offence of illegal construction.

Punishment for illegal construction

29. Whoever, commits an offence of illegal construction shall be punished with imprisonment of either description which may extend to one year or with fine or both.

Punishment for abetment of the offence of illegal construction

30. Whoever, in the area of illegal diversion or illegal colonisation (i) being an officer, having power to sanction lay out or sanction a map for the construction of building, grants sanction or approves such lay out or the map; or (ii) being an officer under a primary duty to do so knowingly omits to report illegal diversion of land or illegal construction of a building in such an area to the proper authority or (iii) being an officer of the authority competent to sanction electricity or water supply connection grants such sanction with respect to building in such area or (iv) illegally influences the officers aforesaid in granting such sanction or in omitting to make a report of such illegal diversion of land or construction of a building in such area, shall be punished with imprisonment of either description which may extend to one year or with fine or both.

Transfer of plots in an area of illegal diversion or illegal colonisation to be void

31. Notwithstanding anything contained in the Madhya Pradesh Land Revenue Code, 1959 (No. 20 of 1959), transfer or agreement for transfer of plots made by a coloniser in an area of illegal diversion or illegal colonisation, shall be void. The consideration for such transfer received by the coloniser shall be refundable to the transferee with interest at the rate of Rs 24 per cent per annum and the owner of the superstructure shall be entitled to remove the same or claim compensation thereof from the coloniser.

The provisions of this section shall have retrospective effect on transactions where constructions in the area of illegal diversion or illegal colonisation have not commenced.

Forfeiture of the land involved in illegal colonisation

32. The right, title and interest of the coloniser in the land used for illegal colonisation shall, upon

on the date of conviction of the offender under section 27 stand forfeited and vested in the State free from all encumbrances.

CHAPTER—IX

OFFENCES RELATING TO GAMPERING WITH THE PUBLIC DISTRIBUTION SYSTEM

Gampering with the system by the licensed dealer

33. Whoever, being a dealer licensed under any order issued under section 3 of the Essential Commodities Act, 1955 (10 of 1955) instead of applying the essential commodity, declared by or under the said Act, to the public concerned in accordance with the scheme of the public distribution system, intentionally, knowingly or for corrupt motives, transfers such essential commodity to other channels or maintains false fictitious account for the fair distribution of the same, shall be punished with imprisonment of either description which may extend to three years or with fine or both.

Arrestment of offence under section 33 by an officer

34. Whoever, being an officer, directly or primarily incharge of supervising the proper working of public distribution system, knowingly omits to check and report, conceals or abets the commission of the offence punishable under section 33 shall be punished with imprisonment of either description which may extend to three years or with fine or both.

CHAPTER—X

OFFENCE OF MANIPULATION OF TRANSFERS AND UNAUTHORISED ABSENCE OF OFFICERS

Punishment for manipulation of transfers

35. Whoever, being in the service of the State or of a public undertaking secures or attempts to secure, his transfer or cancellation of transfer or posting or promotion, otherwise than by representing or approaching through the normal official or prescribed channels, or before he has unsuccessfully exhausted all such channels, barring exceptionally hard and emergent cases requiring immediate attention for relief, shall be punished with imprisonment of either description which may extend to six months or with fine or both.

Punishment for drawing salary for the period of unauthorised absence from duty

36. Whoever, being an officer intentionally draws, himself or by suppression of facts or otherwise, facts relating to his absence permits or induces the drawing and disbursing officer to draw and disburse the salary to him for the period of his deliberate unauthorised absence from duty unless the same is regularised by grant of permission or sanction of leave with pay, and thereby cheats the Government shall be punished with imprisonment of either description which may extend to one year or with fine or both.

CHAPTER—XI MISCELLANEOUS PROVISIONS

Proof of sanction

37. The sanction for prosecution of a government servant for an offence under this ordinance, issued under section 197 of the Code of Criminal Procedure, 1973 (No. 2 of 1974), and purporting to be duly authenticated and sealed, shall be admissible in evidence without formal proof:

Provided that, where the facts constituting the offence do not appear on the face of the sanction, the Court may call the officer authenticating the sanction to give evidence before it.

Curability of technical defects in the form of sanction

38. Any technical defect in the formal sanction granted under section 197 of the Code of Criminal Procedure, 1973 (No. 2 of 1974) for the prosecution of a person employed in connection with the affairs of the State shall not vitiate the trial, unless it is proved that it caused substantial prejudice to the accused.

Cognisance of offences

39. No Court shall take cognisance of and no police officer shall register a case, inquire into or investigate an offence under this Ordinance against any person unless a report in writing is made by such an officer of the State Government as it may, by notification, specify:

Provided that no such report shall be made against a member of judicial service of State save with the prior concurrence of the High Court.

Offence to be bailable except under Chapter III

40. An offence under this ordinance shall be bailable except offences under Chapter III which shall be non-bailable.

Offences to be triable by a Court of Sessions

41. An offence under this ordinance shall on commitment, be tried by a Court of Sessions.

Provisions not to be derogatory to certain laws

42. The provisions of this ordinance shall be in addition to and not in derogation of the provisions of the Prevention of Corruption Act, 1947 (No. 2 of 1947), Indian Penal Code, 1860 (No. 45 of 1860), the Indian Forest Act, 1927 (No. 27 of 1927), the Madhya Pradesh Excise Act, 1915 (No. 2 of 1915), Essential Commodities Act, 1955 (No. 10 of 1955) and the Code of Criminal Procedure, 1973 (No. 2 of 1974).

Rule making power

43. The State Government may make rules for carrying out the purposes of this Ordinance.

GOVERNOR,

MADHYA PRADESH

BHOPAL

Dated the September 8, 1982.

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MONSOON, CROP AND COMMODITY SURVEY: AUGUST 1982

Kharif prospects bleak

By COMMERCE RESEARCH BUREAU

WIDESPREAD moderate rainfall during the month sobered the intensity of drought in most states. However, the overall progress of the monsoon was unsatisfactory as compared with last year. Kharif prospects were bleak as the standing crops faced the onslaught of drought and floods. The kharif rice output this year was estimated to be lower by about six million tonnes than last year's output of 50 million tonnes.

During the period June 1 to September 8, 1982 rainfall was good (excess or normal) in 20 subdivisions accounting for 62 per cent of the population and 58.9 per cent of the net sown area as compared to 29 subdivisions accounting for 86.2 per cent of the population and 83.2 per cent of the net sown area during the corresponding period last year. Rainfall was deficient in 14 sub-divisions covering 37.9 per cent of the population and 41.1 per cent of the net sown area this year as against six sub-divisions covering 13.8 per cent of the population and 16.8 per cent of the net sown area during the corresponding period last year. No data was available this year for one sub-division accounting for 0.1 per cent of the population.

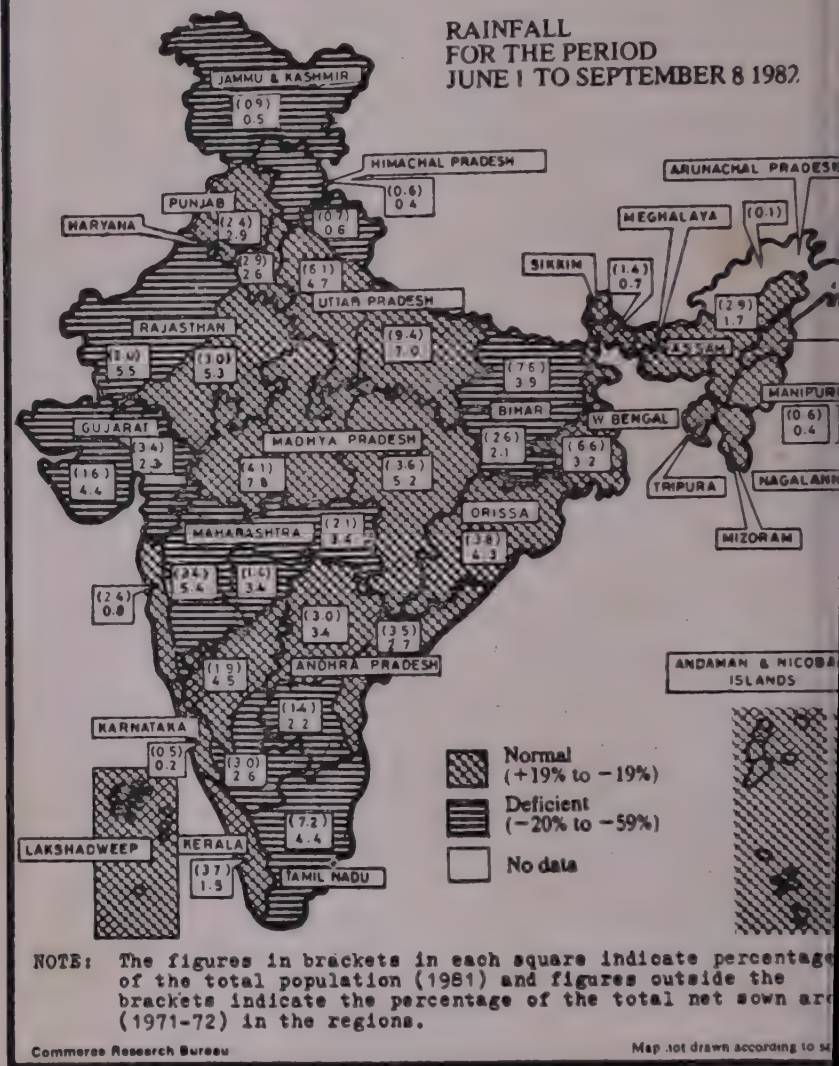
Drought conditions were reported in parts of Bihar, Karnataka, Maharashtra and West Bengal. The situation was grave in Bihar where 20 districts with a population of 20.76 lakhs were gripped by drought. About 50 per cent of the kharif crops, valued at Rs 12 crores, were lost. The State Government sought Central assistance to the tune of Rs 226 crores. In Maharashtra, about 3.5 million people in Marathwada and Vidarbha regions were affected. In West Bengal, the crop loss in 11 districts was estimated at Rs 325 crores. The Centre sanctioned Rs 24.77 crores to West Bengal for drought relief.

Floods in the major rivers caused havoc in the states of Bihar, Madhya Pradesh, Orissa and Uttar Pradesh. In Bihar, over 27.82 lakh people in 8,500 villages in 13 districts were affected. The damage to crops was estimated at Rs 15 crores. In Orissa, 140 persons lost their lives and one crore people in 8,000 villages in 8 districts were affected. In Madhya Pradesh, 41 persons lost their lives. Crops worth Rs 11 crores were damaged by floods. In Uttar Pradesh, 352 persons died. About 15 million people in 41 districts were affected. The State Government sought Central assistance to the tune of Rs 56 crores. Flash floods in the coastal districts of Karnataka claimed 33 lives. The State Government sought Central assistance of Rs 20 crores.

India contracted for the import of 2.5 million tonnes of wheat this year from the US at an estimated cost of Rs 450 crores to be shipped by March 1983. In 1981-82, wheat imports were 1.5 million tonnes valued at Rs 236 crores from the US and 0.75 million tonnes from Australia valued at Rs 94 crores.

The Agricultural Prices Commission recommended a uniform procurement price of Rs 122 per quintal for

Progress of Monsoon



both paddy and coarse grains for the 1982-83 marketing season. For 1981-82, the Union Government had fixed the procurement prices for paddy and coarse grains at Rs 115 and Rs 116 per quintal, respectively.

Foodgrain stocks on July 1, 1982 were 15.46 million tonnes as against 13.67 million tonnes on July 1, 1981.

Sugar production during the period October 1, 1981 to August 15, 1982 amounted to 83.85 lakh tonnes against 50.76 lakh tonnes during the corresponding period last year. The total stocks of sugar on August 15, 1982 were 42.84 lakh tonnes as against 14.65 lakh tonnes a year ago.

The Jute Corporation of India purchased over 1.5 lakh bales of raw jute by way of price support operations during the period July 1, 1982 to September 8, 1982, as against 0.78 lakh bales during the corresponding period last year.

The following pages present the statewise cropwise position in August 1982:

PROGRESS OF THE SOUTH-WEST MONSOON DURING AUGUST 1982

State/Region	Population 1981 Census (million)	Net area : 1971-72 million hectares				Kharif crops	Rainfall for the period June 1 to August 25, 1982				Rainfall for the week ending August 1982			
		Sown	Irrigated	Percentage of net irrigated area to net sown area	Food		Cash	Normal (mm)	Actual (mm)	Departure from the normal (Percentage)	4th	11th	18th	25th
Uttar Pradesh	53.61	11.27	3.00	26.6	Rice, jowar, bajra, maize and ragi	Castorseed, groundnut, tobacco, mesta, cotton and chillies	370	328	-11	N	S	N	E	N
Uttar Pradesh	23.74	3.71	1.88	50.1			533	599	-12	N	N	N	E	D
Uttar Pradesh	20.17	4.63	0.66	14.3			251	167	-33	D	S	D	D	S
Uttar Pradesh	9.70	2.93	0.48	16.4										
Assam	19.90	2.24	0.57	25.4	Rice and maize	Jute and tea	1089	1016	-7	N	N	D	D	D
Bihar	69.82	8.28	2.38	28.7	Rice and maize	Jute, mesta and potato	788	604	-23	D	D	E	E	E
Bihar	17.57	2.90	0.21	7.2			749	532	-29	D	ND	S	S	D
Bihar	52.25	5.38	2.17	40.3										
Gujarat	39.14	9.32	1.21	13.0	Bajra, jowar, rice and maize	Cotton, tobacco, groundnut and castorseed	590	537	-9	N	S	N	E	N
Gujarat region	23.53	3.26	0.48	14.7			432	247	-43	D	S	S	E	D
Madhya Pradesh	10.61	6.06	0.73	12.0										
Chandigarh (Including Chandigarh & Delhi)	19.50	3.67	1.57	42.8	Bajra, maize, rice and jowar	Cotton and sugarcane	361	450	25	E	N	E	D	E
Himachal Pradesh	4.24	0.55	0.09	16.4	Maize, rice and ragi	Apples, potato and ginger	1057	605	-43	D	N	D	D	S
Jammu and Kashmir	5.95	0.71	0.26	36.6	Maize and rice	Apples and saffron	276	281	-2	N	D	E	D	D
Karnataka	37.04	10.33	1.38	13.4	Ragi, jowar, Bajra and rice	Safflower, groundnut, cotton, coffee and sugarcane	2669	3321	-24	E	E	E	E	N
Karnataka	3.94	0.31	0.11	35.5			391	374	-4	N	E	D	N	D
Karnataka	13.16	6.30	0.45	7.1			233	198	-15	N	E	D	N	S
Karnataka	20.44	3.72	0.82	22.0										
Kerala	25.40	2.19	0.44	20.1	Rice, ragi and tapioca	Tea, coconut, coffee, arecanut, rubber and black pepper	1444	1447	-0	N	E	E	E	N
Madhya Pradesh	52.14	18.46	1.64	8.9	Jowar, maize, rice and bajra	Sesamum, groundnut, cotton and sannhemp	881	839	-5	N	N	E	E	E
Madhya Pradesh	24.42	7.38	0.75	10.2			681	779	14	N	E	N	E	E
Madhya Pradesh	27.72	11.08	0.89	8.0										
Maharashtra	63.72	16.58	1.34	8.1	Jowar, bajra, ragi and rice	Cotton, safflower, groundnut, chillies and sugarcane	2162	2071	-1	N	N	D	E	N
Maharashtra	16.16	1.00	0.04	4.0			352	303	-14	N	S	D	E	N
Madhya Maharashtra	23.50	6.96	0.74	10.6			425	331	-22	D	S	S	E	N
Marathwada	9.73	4.31	0.27	6.3			723	569	-21	D	D	N	E	D
Madhya Pradesh	14.33	4.31	0.29	6.7										
Manipur	1.41	0.14	0.07	50.0	Rice	Chillies	—	—	—	—	—	—	—	—
Meghalaya	1.33	0.16	0.04	25.0	Rice	Potato, Jute and mesta	—	—	—	—	—	—	—	—
Nagaland	0.77	0.06	0.01	16.7	Rice	—	—	—	—	—	—	—	—	—
Orissa	26.27	6.12	1.15	18.8	Rice, ragi and maize	Castorseed, sesamum, jute and mesta	820	749	-9	N	D	D	E	E
Punjab	16.67	4.08	2.96	72.5	Maize, bajra and rice	Cotton, sugarcane, groundnut and potato	329	265	-19	N	N	E	S	D
Rajasthan	34.11	15.2	62.17	14.2	Bajra, maize and jowar	Cotton, sesamum and sannhemp	464	493	6	N	N	N	E	E
Rajasthan	20.71	7.48	1.44	19.3			209	187	-10	N	D	D	E	D
Rajasthan	13.40	7.78	0.73	9.4										
Tamil Nadu (Including Pondicherry)	48.90	6.35	2.71	42.7	Ragi, rice, bajra and jowar	Tea, chillies, groundnut, sesamum, cotton and sugarcane	169	107	-37	D	S	N	S	S
Tripura	2.05	2.40	0.02	0.83	Rice	Jute, mesta and tea	—	—	—	—	—	—	—	—
Uttar Pradesh	110.89	17.32	6.99	40.4	Maize, bajra, rice and jowar	Sesamum, potato and sugarcane	666	472	-29	D	S	D	S	E
Uttar Pradesh	64.01	9.87	3.70	37.5			564	574	2	N	N	E	S	N
Uttar Pradesh (Plains)	42.06	6.58	3.15	47.9			1211	748	-38	D	N	N	N	N
Uttar Pradesh (Hills)	4.82	0.87	0.14	16.1										
West Bengal	54.80	5.71	1.49	26.1	Rice	Jute, mesta, tea and potato	1676	1556	-7	N	ND	D	S	N
West Bengal	9.74	0.97	0.12	12.4			787	727	-8	N	E	E	D	E
West Bengal	45.06	4.74	1.37	28.9										

RES: E = Excess, i.e. + 20 per cent or more N = Normal, i.e. + 19 per cent to -19 per cent D = Deficient, i.e. -20 per cent to -59 per cent
 Figures of rainfall for Assam include also those for Meghalaya
 S = Scanty, i.e. -60 per cent or less NR = No rain

ANDHRA PRADESH

During the current kharif season the pilot crop insurance scheme was extended to cover 107 talukas for paddy, 28 talukas for jowar and 33 talukas for groundnut at a total cost of rupees two crores.

The State's Agriculture Department earmarked a sum of rupees five crores for disbursement as short term credit to the farmers during the kharif season. Last year Rs 7.15 crores were disbursed during the same season.

At the instance of the Centre, the Andhra Pradesh Irrigation Development Corporation submitted a revised plan for an IDA loan of Rs 57.68 crores for 107 lift irrigation schemes and 1,800 tubewells to be constructed within a period of five years. When completed, about 0.91 lakh hectares and 0.71 lakh hectares would be irrigated during the kharif and rabi seasons respectively.

In a bid to boost irrigation facilities the State Government proposed to complete all on-going minor irrigation schemes during the current financial year. If necessary, additional funds would be earmarked under a supplementary budget to expedite the work.

A Rs 40-crore social forestry project has been drawn up by the State Government with assistance from the Canadian Government.

ASSAM

The overall flood situation in the State improved. The Brahmaputra and its tributaries receded by August 8, 1982 and were flowing below the danger mark. The floods affected three lakh people and rendered 2,000 homeless.

Heavy downpour during the first half of the month claimed seven lives. The low lying areas around Gauhati were inundated.

Harvesting of the jute crop was in progress during the month. The State agriculture department estimated the jute crop to exceed the target of 10.5 lakh bales set for the year.

BIHAR

Acute drought conditions were reported in 20 districts due to the failure of the south-west monsoon. Therefore, only 50 per cent of the normal area was covered under paddy. The maize crop this year was estimated to be only one-third of the normal crop. The damage to

kharif crops was estimated at Rs 12 crores.

The State Government has sought Central assistance of Rs 226 crores for drought relief works. The Government has requested the Centre for an ad hoc allocation of 1.14 lakh tonnes of wheat and 0.56 lakh tonnes of rice besides the normal allocation of one lakh tonnes for the month.

While drought gripped more than half the State, floods ravaged 13 districts towards the end of the month. The major rivers were in spate with the Ganga flowing well above the disastrous 1975 level at Dighaghat. The army was rushed to assist 2.8 million people affected by floods. Seven persons lost their lives. Standing crops on an area of 2.6 lakh hectares, valued at Rs 15 crores, were damaged. The floods damaged 10,000 houses and property to the tune of Rs 2.14 crores. The State Government sent an SOS to the Centre for two army helicopters when Saran district was completely cut off by the flood waters.

In view of the drought, the State Government revised the Wheat Levy Procurement Order 1982 to facilitate import of more wheat by traders. Under the revised policy traders importing wheat would be charged less than the existing levy of 50 per cent.

The State Electricity Board accorded top priority to power supply for agricultural purposes in preference to urban areas and industries.

GUJARAT

The State received moderate rainfall during the month which was beneficial for the groundnut crop. The rain eased to some extent the problem of drinking water and fodder.

On account of the belated arrival of the monsoon, the State Government launched an extensive campaign for crop insurance to minimise the adverse impact on crop prospects. A working group has been set up to study and recommend measures to streamline the implementation of the scheme.

During the 1982-83 cotton season the Gujarat State Cooperative Cotton Marketing Federation proposed to purchase 2.27 lakh bales of cotton. Total purchases by the Federation during 1981-82 were 1.9 lakh bales.

HARYANA

The kharif foodgrains output in the State was expected to reach last year's level of 12.5 lakh tonnes, pro-

vided there were adequate rains during August and September 1982. Transplantation of paddy to the extent of 90 per cent could be completed during the month. The State Government distributed 0.53 lakh quintals of certified seeds till the end. The State Government also provided subsidy of 20 per cent on paddy weedicides. A sum of Rs 10 crores was distributed to farmers.

The State Government has prepared contingency plans to compensate any loss in kharif production due to drought. The plans cover cultivation of short duration varieties of coarse grains and pulses.

HIMACHAL PRADESH

Flash floods claimed 25 head of cattle and damaged property in 15 villages in Nurpur subdivision. Another 15 villages of Solan district were threatened by the swollen Sirsa and its tributaries.

During the current year 61 saplings would be planted in Kangra district under the afforestation programme. Besides, 1,800 hectares would be brought under fruit trees.

A programme for construction of cooperative godowns at a cost of Rs 12 crores in the rural areas under a World Bank project would start shortly in the State.

JAMMU & KASHMIR

Foodgrains production target for 1982-83 was fixed at 15.20 lakh tonnes. The State Government has to be self-sufficient in foodgrains by the end of the Sixth Plan when production was expected to reach 17.30 lakh tonnes. Steps were being taken to increase the area under crops, especially high yielding varieties, and also boost fertiliser consumption.

Under the soil conservation programme 14 schemes were completed and another four schemes were in completion. The total allocation for the purpose was Rs 83 lakh for 1982-83.

Production of hops in the State was expected to reach a record of 200 tonnes valued at Rs one crore this year. This would be 10 times more than that produced in 1981.

KARNATAKA

The coastal districts — Shimoga, Dakshina Kannada, Uttara Kannada, Chikmagalur — of the State were hit by the flood fury which claimed 33 lives and damaged crops worth over

more. The State Government Central assistance to the tune of 20 crores. The State Government released Rs 27 lakhs for relief rehabilitation measures. The Government sanctioned Rs 55 lakhs for works in four districts. The Minister, Mrs Indira Gandhi, donated Rs 10.5 lakhs to the State. A central team was expected to visit the State to assess the flood damage.

The spectre of drought loomed over Bijapur, Chitradurga and Belgaon districts. In these districts the kharif crops withered due to lack of rains. Agricultural operations came to a standstill. The State Government released rupees one crore for drought relief works. These districts also experienced acute scarcity of drinking water.

Under the new food policy for 1983, the State Government decided to reintroduce the growers' levy, in addition to the modified form of mill-point levy. As per the terms of the levy, the millers would be compelled to sell 40 per cent of the total quantity of rice obtained by milling to the Government at the purchase price fixed by the State Government. The percentage under the growers' levy would be on a graded basis. The State Government expected to procure three lakh tonnes of paddy under the growers' levy mill-point levy.

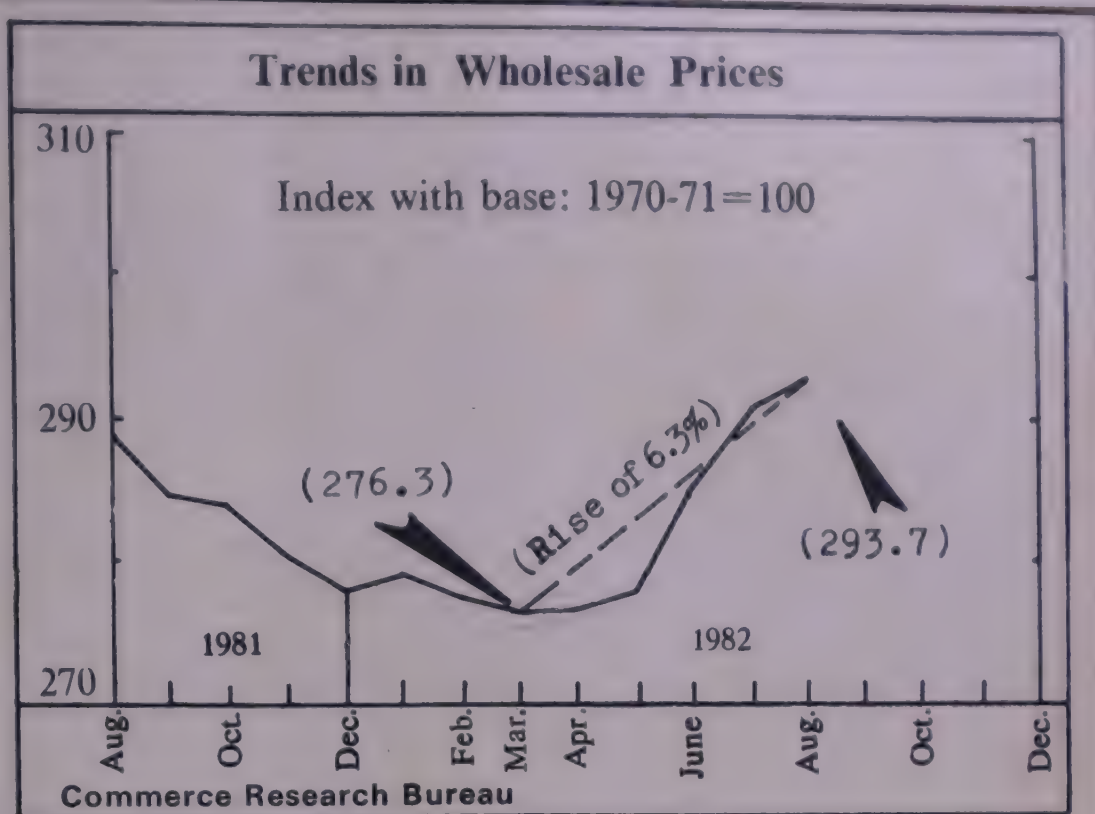
Cardholders in the State were allowed to draw open market Andhra Pradesh rice at Rs 3.07 per kg to the extent of 10 kgs per card in addition to the usual quota of rice for each month of August 1982.

The Directorate of Food and Supplies made arrangements to supply an additional kilogram of cooking oil per card besides the usual quota of one kg to cardholders in Bangalore City Informal Marketing Area during August 1982.

The State Cabinet approved an Indo-Danish project to streamline agricultural training and extension system in the State. The total cost was estimated at Rs 421.10 lakhs, of which 70 per cent would be Danish assistance and the balance would be borne by the State Government. The project would be implemented over a period of five years commencing from the current year.

ALA

The Central Arecanut Marketing Processing Corporation (CAMP) would procure cocoa from



PRICES IN AUGUST 1982

Uptrend continues

FOR the fifth month in succession the uptrend in the wholesale price index persisted during August. At 293.7 the average wholesale price index for the month was higher by one per cent over July. During the first five months (April-August 1982) of the current financial year the average wholesale price index was higher by 1.2 per cent than that during the corresponding period of 1981-82.

The rise in the wholesale price index during August 1982 was attributed to the rise in prices of rice, wheat, bajra, maize, suji, maida, atta, bread, biscuits, urad, arhar, copra, coconut oil, butter, fish, eggs, resins, rubber chemicals, dry cells and hurricane lanterns.

Month	Wholesale price index (Average) (1970-71=100)	Percentage change
1981		
May	277.9	+0.8
June	279.9	+0.7
July	286.2	+2.3
August	289.2	+1.0
September	284.6	-1.6
October	283.9	-0.2
November	280.2	-1.3
December	278.0	-0.8
1982		
January	277.2	+0.4
February	277.1	-0.8
March	276.3	-0.3
April	276.5	+0.1
May	278.5	+0.7
June	285.8	+2.6
July	290.9	+1.8
August	293.7	+1.0

Index number of wholesale prices

(Base : 1970-71=100)

Group	Weight in the official index	Aug. 28, 1982	July 31, 1982	Aug. 29, 1981	Percentage variation on Aug. 28, 1982 over	
					July 31, 1982	Aug. 29, 1981
Manufactured products	49.9	275.4	274.0	274.4	0.5	-0.4
Food products	13.3	279.6	282.9	316.6	-1.2	-11.7
Primary articles	41.7	283.4	280.2	271.7	1.1	4.3
Food articles	29.8	260.5	256.9	242.8	1.4	7.3
Non-food articles	10.6	249.3	246.9	246.2	1.0	1.3
Fuel, power, light and lubricants	8.4	455.4	455.4	437.5	—	4.1
All commodities	100.0	294.0	291.9	287.1	0.7	2.4

growers in the State at the rate of Rs 1.50 per kg of cocoa pods.

The cashew crisis was solved when private processors and exporters agreed to purchase stocks at the rate of Rs 7,600 a tonne quoted by the Kerala State Cooperative Marketing Federation.

MADHYA PRADESH

During the month, floods claimed 41 lives in six districts of the State. The damage to kharif crops was estimated at Rs 11 crores. Army boats and four air-force helicopters were rushed to Raipur and Raigarh districts to assist in rescue operations for about 50,000 people in 106 villages.

The Prime Minister, Mrs Indira Gandhi, sanctioned rupees five lakhs to Madhya Pradesh as flood relief.

The International Development Association (IDA) agreed to finance the second phase of an irrigation project with a credit of \$31 million (Rs 27 crores). Under the project, the irrigated area in the Chambal region would increase by 32,000 hectares. In addition, irrigation facilities in 40,000 hectares and drainage in 4,500 hectares would be upgraded.

The World Bank offered to provide Rs 100 crores for setting up of soyabean processing plants in the State as the soyabean crop was being grown in over six lakh hectares in the Central region.

MAHARASHTRA

The absence of monsoon was reflected in drought in parts of the State. The standing kharif crops in Marathwada and Vidarbha regions were withering for want of moisture. In Pune district, about 745 villages were gripped by drought. About 200 head of cattle perished for want of fodder. The State Minister for Rural Development decided to release water from irrigation dams in the command areas to save the kharif crops in Pune district. In Ahmednagar district, famine conditions were reported due to shortage of drinking water and fodder.

Kharif crops were sown in an area of 11 million hectares out of total area of 12.4 million hectares. The unsown areas were mainly in Ahmednagar, Pune, Nashik, Sangli, Satara, Solapur and Beed districts. About 3.5 million people were reported to be affected by drought. Works under the employment guarantee scheme were increased to provide more employment to people.

The State Government has taken steps to help the drought hit farmers.

The State Government decided to set up independent Maharashtra Cotton Producers' Cooperative Marketing Federation in place of the Maharashtra State Cooperative Marketing Federation. The new body would undertake monopoly cotton purchase from the 1982-83 cotton season.

Under the monopoly cotton purchase scheme, the State Government reduced the guaranteed price paid to cotton growers by Rs 20 to Rs 100 per quintal for the 1982-83 season depending on the variety of cotton. The Maharashtra State Cooperative Marketing Federation has in the meanwhile commenced purchase of kapas through six centres in the Phaltan Baramati area.

The Union Government constituted an eight-member committee for overseeing the operations of the monopoly cotton procurement scheme in the State. The committee would ensure that cotton was made available to mills at reasonable prices.

The State Government made available 15,000 bags each of rawa and maida for distribution to cardholders at fixed prices.

The State Government issued the Maharashtra Cattle Fodder (Transport Control) Order, 1982 prohibiting any attempt to transport or abet the transport of cattle fodder from any district to any area outside the district except with the collector's authority.

The State achieved self-sufficiency in seed stocks one year ahead of schedule. Under the programme started in 1980-81 the State was expected to achieve self-sufficiency by kharif 1983 which has been achieved this season. The State's demand would be met by the Maharashtra State Seeds Corporation thus eliminating dependency on the National Seeds Corporation.

ORISSA

The State experienced the worst deluge in living memory when the Mahanadi and its tributaries breached their embankments at 178 points. In the eight flood-hit districts, about 10 million people were in distress. According to latest reports, 140 persons lost their lives out of one thousand reported missing. About 2,000 head of cattle were washed away. The cropped area affected was three million hectares.

The Cuttack district was worst-hit when the Kathjuri breached its

embankments at three points. In district alone five million people about 2,000 villages were affected. Puri district, over one million people in 1,811 villages were reeling under floods. The State Government sought the assistance of the armed forces to conduct rescue operations for the marooned people. The Prime Minister sanctioned Rs 30 lakh to the State.

The Centre allotted 10,000 tonnes of rice to the State in addition to 10,000 tonnes allotted for the public distribution system.

The Chief Minister has asked district collectors to issue consumer cards to people in rural areas having less than two hectares of land on income of less than Rs 500 per month. The collectors were also asked to ensure that rice was supplied to them only through cooperative societies and fair price shops.

PUNJAB

Though the State received moderate rainfall during the month, the overall progress of the monsoon was unsatisfactory. However, condition of the standing kharif crops including cash crops like sugarcane and groundnut was good.

The State Government demanded that the procurement price of paddy be fixed at Rs 128 per quintal for 1982-83 as against Rs 115 per quintal fixed by the Centre for 1983. The Agricultural Prices Commission recommended Rs 122 per quintal of paddy for the 1982-83 marketing season.

The Punjab State Civil Supplies Corporation decided to export 38,000 tonnes of basmati rice and 10,000 tonnes of maize during the current year. Last year the Corporation exported 40,000 tonnes of parma to Russia and 22,000 tonnes to Kuwait.

RAJASTHAN

The failure of the monsoon in the western region aroused concern on the farm front. Drought loomed large over 23 districts where rainfall during the month was below normal.

Flash floods in Kota and Sirohi districts killed 12 people and affected the inhabitants of 10 villages.

A programme for planting 10 million saplings was launched in the Southern parts of the State this year to restore the ecological balance. Under the programme it was proposed to plant 300 saplings in one hectare.



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TAMIL NADU

owing to the vagaries of the west monsoon this year only 10 per cent of the area under rain-cum-rundnut was sown as against normal acreage of seven to eight hectares. Besides, it dampened farmers' hopes of a good winter

The State Government advised the rice producing districts to stop their machinery to procure as much as possible under the levy. It was decided to continue levy of 50 per cent on movement of rice from one district to another. The target for rice production this year was fixed at 68 lakh tonnes.

The State Government revised the issue price of wheat sold through the public distribution system from Rs 1.55 to Rs 1.75 per kg, effective August 8, 1982.

The Tamil Nadu Civil Supplies Corporation reduced the issue price of market sugar to Rs 450 per quintal, effective September 1, 1982. Holders in the State would be allowed two kg of sugar per card during September and October 1982.

The State Government sanctioned Rs 38.52 lakhs as ways and means to the corporations of Madurai and Coimbatore for meeting the initial expenditure on nutritious noon meal programme for children expected to commence in September 15, 1982 in the urban areas.

WEST BENGAL

About one lakh people in the State were affected by floods caused by the rising rivers. The army was deployed. However, its assistance was sought as the rivers receded slowly. Total crop and property loss was not yet assessed.

WEST BENGAL

The State which had been gripped by drought earlier reeled under onslaught of floods. The major rivers—Ganga, Yamuna, Ghaghra, and Tons—overflowed their banks and inundated 2.2 million hectares in 41 districts. The State claimed 352 lives and affected 15 million people in 5,000 villages. Over 1,000 head of cattle died. The cropped area affected was 2 million hectares. As many as 325 flood relief camps were set up.

Some of the worst flood-hit districts were Ballia, Basti, Faizabad,

Ghazipur, Banda, Hamirpur, Varanasi, Mirzapur and Allahabad.

The State Government sanctioned Rs 5.18 crores as ex-gratia payment to flood victims and for relief works. The State sought Central assistance to the tune of Rs 56 crores. It has requested the Centre to allocate 1.5 lakh tonnes of rice and wheat. The Prime Minister, Mrs Indira Gandhi, sanctioned Rs 20 lakhs to the State for relief works.

On account of the drought in July the kharif foodgrains production was estimated to be lower by 20 lakh tonnes. The State Government sought Central assistance to the tune of Rs 165 crores for drought relief works.

The State Government revised the prices of wheat products effective August 1, 1982. The revised prices for maida, resultant flour and whole mill flour were fixed at Rs 260, Rs 115 and Rs 204 per quintal, respectively.

WEST BENGAL

The failure of the south-west monsoon aggravated the drought in the State. In North Bengal, crop losses were nominal, but the situation in South Bengal was grave in 11 districts where about one-fifth of the area under the aman crop could not be sown. With respect to standing crops the loss on account of drought was to the extent of 30 per cent in the case of aus, aman, and jute in the State. Preliminary estimates placed the damage at Rs 325 crores.

The aus paddy crop was expected to be lower at 2.5 lakh tonnes last year. The jute crop was scaled down to 30 lakh bales. The State's Agriculture Department will hold a meeting with farm officers in the districts to assess crop losses. The Centre sanctioned Rs 24.77 crores for drought relief as against Rs 72 crores demanded by the State Government.

The State Government released Rs 50 lakhs for implementation of the rural works programme in the drought hit districts which would create one million mandays. At a high level meeting it was decided to raise the daily wage of labourers engaged under the programme to bring it on par with the rates prevailing under the National Rural Employment Programme. The State sanctioned a sum of rupees one crore for the National Rural Employment Programme. As part of the State's relief programme 70,000 people were given 1,000 tonnes of rice as gratuitous relief and a sum of

Rs 25 lakhs was granted for distribution of seeds and fertilisers to the farmers.

The issue price of wheat distributed through ration shops in the State was revised to Rs 1.82 per kg. The Centre had earlier raised the price from Rs 1.80 to Rs 1.83 per kg.

The Jute Corporation of India (JCI) and the West Bengal State Cooperative Marketing Federation (BENFED) decided to purchase 50 per cent of the total jute crop in the State this year. The JCI would purchase 9.3 lakh bales and BENFED 6.20 lakh bales during the current jute year (July 1982-June 1983).

Rice

The Agricultural Prices Commission (APC) recommended a procurement price of Rs 122 per quintal for common varieties of paddy for the 1982-83 marketing season. The Union Government had fixed the procurement price for the 1981-82 season at Rs 115 per quintal for paddy.

Procurement of rice during the 1981-82 kharif marketing year (November 1981-October 1982) till September 4, 1982 totalled 72.34 lakh tonnes as against 58 lakh tonnes procured during the entire 1980-81 marketing season.

The Union Ministry of Agriculture has reduced drastically the export quota for non-basmati rice for the current financial year to 3.5 lakh tonnes as against 7.5 lakh tonnes fixed earlier. So far about 2.5 lakh tonnes of rice has been exported besides shipment of about 0.70 lakh tonnes of basmati rice.

Wheat

During the current rabi marketing season (April 1982-March 1983) wheat procurement till September 4, 1982 totalled 76.91 lakh tonnes as against 65.9 lakh tonnes during the entire 1981-82 marketing season.

India contracted for the import of 25 lakh tonnes of wheat from the United States. Of the total quantity, 13.65 lakh tonnes would be of white/soft white variety. The prices quoted range from \$157.50 to \$171.13 per tonne for the white variety and \$154.33 to \$172.70 per tonne for the hard red variety. Imports would be staggered between September 1982 and March 1983. On the basis of average f.o.b. price of around \$163 per tonne and including ocean freight rates the total cost works out to around Rs 450 crores. In 1981-82, India purchased 15 lakh tonnes of wheat from the US at an average

price of \$172.98 per tonne costing Rs 236 crores.

The price of wheat (desi) in the Delhi market rose by 3.9 per cent during the month to Rs 240-290 per quintal.

Jute

With the arrival of the new jute crop the Jute Corporation of India commenced purchases. Daily arrivals were, however, low at 7,000 bales against the normal arrivals of 15,000 bales. Arrivals of jute from South Bengal districts were expected in September. The JCI will purchase jute from the farmers holding identity cards at the rate of two quintals per day from each cardholder at the statutory support prices.

The Union Government directed the JCI to export on an *ad hoc* basis three to four lakh bales of raw jute this season.

The production of jute goods during July 1982 at 81,400 tonnes was marginally lower as compared to 85,100 tonnes in the preceding month.

Export despatches of jute goods from mills were lower at 23,800 tonnes in July 1982 as against 28,600 tonnes in July 1981. Domestic sales were 71,600 tonnes as against 82,900 tonnes a year ago.

In the Calcutta market the price of jute (W-5) rose by 1.9 per cent during the month to Rs 244.50 per quintal.

Cotton

The cotton crop during 1981-82 was estimated at 82 lakh bales as against 78.50 lakh bales in 1980-81.

On account of the textile strike in Bombay the consumption of cotton by the mills during 1981-82 cotton season was expected to be lower by six lakh bales as against 76.8 lakh bales in the previous year.

The Union Government decided to constitute a coordination committee in each cotton producing state with representatives from the Cotton Corporation of India, state governments and state cooperative marketing federations. The committee would review periodically the problems in purchase and sales of cotton. It would also ensure that a system of purchase operations and sales is evolved and that the prices of cotton exhibit stability and are bereft of speculation.

The East India Cotton Association has permitted non-transferable specific delivery contracts in diffe-

rent varieties of cotton for the 1982-83 season. The Association permitted trading in all varieties grown in Northern India and all varieties grown in Bijapur and Bellary districts of Karnataka. Trading commenced on August 27, 1982 on the basis of delivery within three months following the signing of the contract.

The price of cotton (CJ-73) in the Bombay market rose by 1.3 per cent during the month to Rs 1,097 per quintal.

Edible oils

The Union Government increased the supplies of imported edible oils to the vanaspati industry from 60 per cent of their requirements to 70 per cent. Of this, 60 per cent would be supplied at the existing rate of Rs 8,500 per tonne while the extra 10 per cent would be supplied at Rs 12,000 a tonne.

Vanaspati production in the country during 1982 was estimated to be higher at nine lakh tonnes as against 8.48 lakh tonnes in 1981.

During the first seven months of 1982, 1.70 lakh tonnes of groundnut extractions were exported valued at Rs 23.5 crores as against 3.18 lakh tonnes valued at Rs 49.14 crores exported during the whole of 1981.

The price of groundnut kernels (Karad Bold) in the Bombay market declined by four per cent during the month to Rs 595 per quintal.

Sugar

Sugar production during July 1982 — the tenth month of the current sugar season — was 0.89 lakh tonnes as against 0.20 lakh tonnes in July 1981. Total production during the period October 1981-July 1982 was 83.64 lakh tonnes as against 50.64 lakh tonnes during the corresponding period last year. The off-take during the month was 5.31 lakh tonnes for internal consumption and 0.78 lakh tonnes for exports as against 4.59 lakh tonnes for internal consumption and nil for exports during July 1981.

The total off-take in the first 10 months was 42.74 lakh tonnes for internal consumption and 2.93 lakh tonnes for exports.

The total closing stock of sugar with the factories at the end of July 1982 was 45.76 lakh tonnes as against 16.51 lakh tonnes on the same date last year.

The Union Government released 6.24 lakh tonnes of sugar — the highest monthly release since Nov-

ember 1967 — for internal consumption during September 1982 against 5.94 lakh tonnes released in August 1982.

The State Trading Corporation finalised contracts for the export of 5.50 lakh tonnes of sugar as against the quota of 6.50 lakh tonnes. The Union Government has decided not to violate the stipulations of international sugar agreements by exceeding the quota.

The price of sugar (C-30) in the Bombay market declined by 1.5 per cent during the month to Rs 442-465 per quintal.

Tea

Exports of tea during the first half of 1982 were 66 million kg valued at Rs 120 crores as compared with 111 million kg valued at Rs 110 crores during the same period last year.

The Reserve Bank of India has formulated guidelines for commercial banks for financing the tea industry for the 1983 season. For the purpose of assessment of working capital requirements, banks were asked to classify borrowers into four categories.

The price of tea in the Bombay market ruled steady at Rs 2,400 per quintal.

Coffee

The chairman of the Coffee Board, Mr N. Narasimha Rao, expressed fears that the export quota for India for 1982-83 would be reduced. The quota for 1982-83 has not yet been fixed. The effective quota for 1981-82 was 52,201 tonnes and shipments up to August 24 amounted to 46,254 tonnes.

Coffee production during 1982 was estimated at around 1.4 lakh tonnes as against 1.40 lakh tonnes in 1981-82.

Rubber

Production of natural rubber during 1982-83 was estimated at 1.53 lakh tonnes while demand was placed at 1.97 lakh tonnes.

During 1981-82 India produced 1.53 lakh tonnes of natural rubber and 0.29 lakh tonnes of synthetic rubber.

The State Trading Corporation has been asked to import an additional quantity of 10,000 tonnes of natural rubber. This takes the total authorised quantity to 40,000 tonnes for 1982-83.

Spot prices of agricultural commodities: August 1982

(Rs per quintal)

Commodity	Market	Variety	August 31. 1982	July 31. 1982	August 31. 1981	August 30. 1980	Percentage variation on August 31, 1982 over		
							a month	a year	two years
Wheat	Delhi	Basmati	550-750	500-700	400-600	325-575	8.3	30.0	44.4
	Hapur	Basmati	500-520	500-520	480-520	450-680	—	2.0	9.7
	T. P. Gudam	Fine	320	320	310.81-317.57	290.54-297.30	—	1.8	8.9
Wheat	Bhatinda	Farm	137-160	137-160	140-150	135-143	—	2.4	6.8
	Delhi	Deshi	240-290	230-280	190-210	155-175	3.9	32.5	60.6
	Rohtak	Dara	175-200	165-200	140-152	110-125	2.7	28.6	59.6
Barley	Bhatinda	Average	100-111	100-111	95-107	100-110	—	4.5	0.5
	Hapur	Average	125-135	112-120	119-125	120-125	12.1	-6.6	6.1
	Shrirampur	Average	165-190	200-215	208-222	140-152	-14.5	-17.4	21.6
Sorghum	Karnal	Average	124	124	128-145	116-128	—	-9.2	1.6
	Ahmedabad	Average	125-148	140-175	170-175	115-135	-13.3	-20.9	9.2
	Shrirampur	Average	165-185	190-225	195-218	130-160	-15.7	-15.3	20.7
Maize	Hapur	Average	155-160	152-158	140-150	108-115	1.6	8.6	41.3
	Karnal	Average	150-160	150-160	130-150	112-135	—	10.7	25.5
	Bombay	Deshi	285	313-318	400-405	335	-9.7	-29.2	-12.3
Rajm	Hapur	Average	260-300	230-300	310-375	280-315	5.7	-18.2	-5.9
	Rohtak	Kabli	460-625	450-650	420-490	330-410	-1.4	19.2	46.6
	Bombay	Varalaxmi (A)	1,617	1,631	1,912	1,687	-0.9	-15.4	-4.1
Cotton	Bombay	CJ-73	1,097	1,083	1,378	844	1.3	-20.4	-30.0
	Bombay	L-147(A)	1,406	1,406	1,575	1,167	—	-10.7	20.5
	Bombay	A-51-9	1,357	1,357	1,575	1,174	—	-13.8	15.6
Jute	Bombay	Bengal Deshi	1,139	1,153	1,097	703	-1.2	3.8	62.0
	Calcutta	W-5	244.50	240	240	217.50	1.9	1.9	12.4
Groundnut and its oil	Bombay	Karad Bold	595	620	616	474	-4.0	-3.4	25.5
	Kanpur	Average	650-690	650-690	775-825	530-550	—	-16.3	24.1
	Rajkot	Average	550	550	537.5	370	—	2.3	48.6
Groundnut oil	Bombay	—	1,359.8	1,424.8	1,456	1,040	-4.6	6.6	30.8
	Madras	—	1,275-1,280	1,295	1,380	1,040	-1.4	-7.4	22.8
	Rajkot	—	1,345	1,345	1,412.5	930	—	-4.8	44.6
Sugars	Bombay	C-30	442-465	545-558	559-570	825-840	-17.8	-19.7	-45.5
	Hapur	—	490-510	540-566	550-590	800-825	-9.6	-12.3	-38.5
	Hapur	Average	300-350	350-425	400-480	480-540	-16.1	-26.1	-36.3
Khandasari	Delhi	Deshi	450-490	525-550	640-660	520-580	-12.6	-27.7	-14.5
	Hapur	Dhala Sup.	270-275	240-260	265-280	375	9.0	—	-27.3
	Bombay	Average	2,600	2,600	2,300	2,400	—	13.0	8.3
Tea	Bombay	Average	2,600	2,600	2,300	2,400	—	13.0	8.3



THE ITC CORPORATE JOURNEY WITHIN THE ENVIRONMENT



I.T.C. Limited

EXCERPTS from Chairman's Speech at the 71st Annual General Meeting held on 26.8.82

A. INTRODUCTION:

Ladies and Gentlemen, good afternoon and welcome to the 71st Annual General Meeting of ITC Ltd. I would like to thank our Non-Executive Directors for taking the trouble to be here today. Their wide experience and wise objective counsel are of immeasurable benefit to the Company.

B. SPECIFIC COMMENTS RE: DIRECTORS' REPORT:

The Report of the Directors for the year ending 31st March 1982 is already with you providing a comprehensive picture of the year under review and indicating satisfactory progress over the previous year, making it possible to recommend an increase in the Dividend from 16% to 18%. To this report I would like to add only three specific comments:

FIRSTLY:

To welcome Mr. J. Narayan and Mr. G.C. Katoch as Executive and Non-Executive Directors respectively to the Board of the Company and to wish them success in their endeavours on behalf of ITC. To also record our appreciation of the services rendered to ITC by Mr. R. Monani and Mr. N.S. Nagrath who resigned from the Board during the year and to wish them well in their new situations

SECONDLY:

To thank all employees of the Company without whose hard work, the results that have been achieved would not have been possible. It is also necessary to stress that the pursuit of self-interested parties outside the organisation to "capture" Unions and create "competitive trade unionism" is not in the interests of the workers or their families, nor is it conducive to continually increasing productivity which is a crying National need.

THIRDLY:

To request the Government to expeditiously re-examine the unintended extra impact of duty on the Cigarette business through the packaging, as it stands proven that the total imposts are already too high and even stability positively maximises Government revenue; still further that with increases in indirect taxation, however it may arise, the converse is true.

C. LOOKING BACK:

This will be the 14th and last time I will have the privilege of addressing you as Chairman of ITC. Including my time spent earlier at the Harvard Business School and working in the Advertis-

66 ... It seems like only yesterday my arriving in Jabalpur in September 1948 to work with the then Imperial Tobacco Co ... 99

sing business. I will be retiring from ITC in January 1983 having been in harness for 40 years. It seems like only yesterday my arriving in Jabalpur in September 1948 to work with the then Imperial Tobacco Co. armed with an M.B.A. degree

My first love and real satisfaction have been the over 34 years I will have spent with ITC. In this my time with ITC, you have done me great honour by having placed your trust in me for over 16 years as a Director of the Company and, even more so, in double measure in the nearly 14 years as Chairman of this your most

wonderful, professional family surnamed now I.T.C. Ltd.

It has been a privilege to have played my small part in contributing to the well being of ITC for which I believe I have given of my best. In Wordsworth's words: "The thought of our past years in me doth breed perpetual benediction".

I hope you will forgive me for any parting tears, the personal nature of my address and equally bear with me for having abbreviated the more normal business review appropriate to such meetings. Instead, I would request you to join me in the ITC Corporate Journey within the Environment that I have been so intimately involved with so that I can share with you my hopes and aspirations of the past, how I see the Company in the present and what I foresee of the future.

D. THE NATIONAL SCENE:

As a Company can only succeed to the extent that the country prospers and, as a primary task of any Chairman of a Company is to relate with Government, I would like to share with you some of my beliefs and thoughts in this regard that have played a part in the changes in ITC.

I believe that, concurrent with the Trusteeship on behalf of the Shareholders, the larger contribution that Industry and Commerce need to make is inherent in the words of Pandit Jawaharlal Nehru when he said: "We talk of freedom, but today political freedom does not take us far unless there is economic freedom."

66 ... Desire for economic advancement is truly a National preoccupation today ... 99

Indeed, there is no such thing as freedom for a man who is starving or for a country which is poor. The poor, whether they are nations or individuals, have little place in this world."

The years since 1948 have been momentous ones in our National history. What we have achieved is truly impressive. In its own way ITC has been instrumental in contributing in some small measure to this progress.

At the very base there is the conviction that things can be better. Desire for economic advancement is truly a National preoccupation today. In this pursuit since 1969 I have had the most satisfying experience in relating with Government and obtaining assistance for the Company in its endeavour to achieve its commercial objectives concurrent with and subserving National interests.

In the present I extend my congratulations to the Government for success on several fronts of which, perhaps, the most important are: (1) Managing inflation. (2) Energising activity to make the infrastructure more efficient. (3) The aggressive search for oil to overcome the black gold trauma. (4) Developing International relations to the benefit of India's Industry and Commerce. (5) The trend towards a more realistic and practical approach to our problems.

As to the future, it is my belief that with a growing population we need to innovate a considerably larger rate of growth than we have had if Pandit Nehru's dreams of real economic independence are to be achieved in a shorter term. To this end, I would like to submit a few observations.

The more specific comments for consideration are: (1) While the policy for foreign investment on a highly selected basis in support of export and transfer of sophisticated technology is disputable, the emphasis could perhaps be changed to: (i) Much larger and easier importation of the latest technology itself supported by Technicians with fair, incentive remuneration to the seller. (ii) Mobilising more rapidly available greater ease larger resources through borrowings overseas guaranteed by the Government and Banks in India while making it incumbent on the borrower to repay through larger exports. (2) Apart from obtaining essential needs more effective use of our available foreign exchange reserves: (i) By investing and utilising our available resources in those areas that result in such investment multiplying our foreign exchange reserves. (ii) By permitting the organisations that have high performance in foreign exchange to have a proportion of 10% as a "blanket investment permit" to create permanent foreign exchange earning Indian enterprise overseas subject to an appropriate "pay back" the original investment within a specific period of time and, thereafter, continually remitting to India from such earnings abroad. (3) To take the risk from changing rules from all-pervasive controls to just controls by exception which, apart from energising and speeding up activity, would also have attendant benefits. (4) Enlarging the mobilisation of resources that the Government may have by shifting emphasis to larger consumption leading to better standards of living coinciding with a bold approach of reducing Corporate and Personal direct taxation to no more than a marginal rate of 50% and with indirect taxation spread over larger production.

In the generic I would submit that our "economics" need to be India grass roots based. I believe that, amongst others, four ingredients need to be given consideration:

1. Recognising that history, politics and socio-economics cannot be compartmentalised. I can still, perhaps to a greater degree, achieve lesser politicising of practical economic issues.
2. Perhaps the time has come when we should consider our country as one that is rich with a lot of poor people because we need to make our resources more productive.
3. Take greater advantage of our unique body of nature which has been neglected, such distinctions as traditional and non-traditional exports when the objective is to maximise foreign exchange earnings from both.
4. Democracy in its perverse form leads to ceding the individual above society. Planning in its totalitarian form crushes the individual. Perhaps we need to rid democracy of its perversity and planning of its totalitarian bias so that we may achieve faster economic independence with the benefits more equitably distributed.

E. I have referred to the theme of my address as a Corporate Journey within the National scene because this is what I believe management is all about. It is a journey undertaken by Management represented by the Board of Directors composed of a well-knit group having common objectives in which decisions emerge by pooling the collective knowledge and in which the Chairman, has a casting vote which he must not hesitate to exercise.

age particularly in respect of risk taking entrepreneurship. The achievement of social objectives and the discharge of so-

... the ITC Corporate Journey over the 14 years has been premised on trying to acquire the best understanding and attempting to find effective answers to a number of questions ... ??

responsibilities in I.T.C. Ltd. have been attained by recognising the Company as a part of society.

ITC Corporate Journey over the past 14 years has been premised on trying to acquire the best understanding and attempting to find effective answers to a number of questions. There have been:

STLY:

is the Company called Imperial Tobacco, as it is seen by others, where does it stand today, where does it appear to be heading and how is it equipped to undertake an arduous meaningful journey? In other words, what is the STARTING point of the journey?

ONLY:

It should be the DESTINATION of the Company for the TOMORROW taking a vision-approach that would enable the achievement of organisational purposes in harmony with what is possible and with the rules of the game of the country in which it will be travelling.

RDLY:

What are the routes and modes of travel and what is the most scenic itinerary, between the START TODAY and reaching DESTINATION TOMORROW?

RTHLY:

What should be the staging or stopping points along the course of the journey that would be essential to avoid fatigue?

LY:

What are the problems likely to be experienced along the journey and how will these be redressed?

THLY:

What versions are encountered, with what sort of difficulty can we overcome them?

ENTLY:

What are the champions of self-interest that are against our going ahead and what weapons do we require to successfully battle with them?

It needs to be stressed that unlike other voyages the Corporate Journey never ends. The destinations recede further and further at each stage. Among the many factors that made the journey itself possible, special mention needs to be made of the overseas Shareholders of ITC Co. — for sowing the original seed of ITC Ltd. as it exists today and for their willingness to travel, with benefit, along the road that has been described.

RECKONING OF THE PAST PRESENT — A LOOK INTO THE FUTURE:

I find myself at a loss to cover the Past and the Present confused by the sayings of wise men: Confucius said: "Study the past if you would be the future", but (2) George Washington said: "We ought not to look back unless it is to derive useful lessons from past errors, and for the purpose of profiting by dear bought experience". (3) Samuel Johnson said: "The future is purchased by the present" but (4) Horace Cayley said: "Duty and today are ours, results and futurity belong to God".

What I can say is that in the journey there have been failures and successes. As Chairman dur-

ring this period, I accept full responsibility for the former from which many a lesson has been learnt. However, upon my laying down this office I will carry with me gratefulness for having had the opportunity of contributing in some measure to the successes achieved collectively by all those who constitute the ITC family. The good fortune that has attended such success cannot be denied and the co-operation of the Government needs to be acknowledged in full measure.

In an endeavour to assess how fruitful the journey has been I would like to quote from my very first address to you in 1969 on "The Pursuit of Self-Reliance" from which emanated the Company slogan: "The best means of growth come from within". I said then: "It is appropriate at this time ... to prepare for the challenge of the future so that your Company can continue to play its part in the economic development of the country. Long acknowledged as the leader

... Success is best judged by not how you see yourself but how others see you ... ??

of the Indian Tobacco Industry, your Company endeavours to discharge the responsibilities that devolve upon a leader: to India's economy as a healthy, progressive industrial unit operating in consonance with the National needs and aspirations ... (providing) to the Shareholder fair profits arising from sound management."

Success is best judged by not how you see yourself but how others see you. It can be said with confidence that the ITC Corporate Journey has transformed what was seen as a single product, almost wholly owned multinational sufficient unto itself, Imperial Tobacco Co., through its intermediate awakening period as India Tobacco Co. to I.T.C. Ltd. A truly professional organisation that is outward bound, risk-taking, progressive, and a multi-product Indian Company.

The figures, related to the commercial objectives speak for themselves: (1) Gross Turnover has increased from Rs.91.9 crores to Rs.588.6 crores and Net Turnover from Rs.35.8 crores to Rs.188.6 crores. (2) Profit before tax from Rs.4.5 crores to Rs.16.9 crores. (3) Profit after tax from Rs.2.1 crores to Rs.7.8 crores (In the above three items all figures are exclusive of other Companies' brands distributed by ITC). (4) Gross employed funds from Rs.34.8 crores to Rs. 120.6 crores. (5) Shareholders' funds from Rs.28.8 crores to Rs.54 crores. (6) Dividend from 11% to 18%, an increase of 135% taking account of two bonus issues for the first time in the history of the Company and a sizeable one in the context of the inflation that has been raging: which on the original base of the issued equity represents a Dividend of nearly 26%. (7) Capital investments increased over the period by Rs.65.5 crores. (8) Retained profits during the period were Rs.20.9 crores. (9) The market price of shares has been steadily rising and from low below par of around Rs.7.70, I see that today the shares were quoted at even over Rs.34/-.

The figures apart some of the facts on diversification are of special significance: (1) The Packaging & Printing Division has become the largest converter in the Printing Industry. (2) ITC promoted Bhadrachalam Paperboards has the highest production efficiency, currently at 115%, in the Paperboard business. (3) ITC's Welcomgroup Chain of Hotels, with some of the Hotels acknowledged among the best in the world, has outstripped the largest competitive Chains who have been in the business from 1901 and the 1920s/early 1930s. (4) Foreign exchange earnings have risen from Rs. 25 lakhs per annum to just under Rs. 60 crores.

I believe that I.T.C. Ltd. today is at a real take-off stage and I would like to prognosticate an even brighter, and more genuinely profitable future with: (1) The Diversifications of the '70s having come of age. (2) The greater ability to consolidate with positive continuing growth. (3) The much larger expansion that can take place from profitable larger investments made possible by increased accretion of retained profits and the ability to mobilise really large resources.

... looking back over the years, my thoughts wander not to the trials and tribulations which were many ... but to the friendships and fellowship I have enjoyed ... and the innumerable kindnesses I have received ... ??

I am also confident that ITC, ever conscious of its social responsibilities, will continue to contribute in even greater measure to our country's search for a better future.

ON A PERSONAL NOTE:

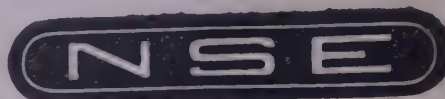
The time has now come to take your leave as, in January 1983, I will be retiring from the Board and the Company's service. This will indeed be a wrench but, looking back over the years, my thoughts wander not to the trials and tribulations which were many, not to the conflicts and canard which there will always be, not even to the numbers in the Balance Sheet and Profit and Loss Account which are important, but to the friendships and fellowship I have enjoyed, the courtesy and the innumerable kindnesses I have received. I will also remember with satisfaction our Shareholders who, over the years, have attended our Annual General Meetings in greater and greater number and given me and my colleagues on the Board their gracious and unstinted co-operation and encouragement. I now wish to take their leave with the assurance that their investment is in good and safe keeping. I am sure that they will stay with ITC for many years to come, applaud its successes and share in its prosperity.

I must end on a personal note. Whatever we in ITC have achieved during the past few years has been the result of a prodigious team effort. I firmly believe that people, will ever respond to warmth and friendship, to recognition to a system of fair rewards and punishment, to opportunities for growth and self-improvement, to challenges which each individual seeks to make his career rewarding. Speaking for myself, a great source of satisfaction has been the opportunity over many years to help so many of my friends and colleagues within the Organisation to grow and, in a short space of time, to take on responsibilities which they had perhaps felt would never be open to them. Even greater has been the satisfaction to witness their achievements and their successes.

I am certain that the ethos in ITC will stay and strengthen in the years to come, that leadership will be established by merit and that those who work in it will flourish, with the Company, in a free and open milieu to sustain dynamism and vitality.

I wish to appeal to you all, our Shareholders, to extend to my successor, Mr. Jagdish Sapru, the understanding, patience and unfailing support that you have given to me over the years. It now only remains for me to wish you all and my colleagues on the Board and in ITC good luck and a safe and exciting journey into the future.

*This does not purport to be a report
of the proceedings of the
71st Annual General Meeting.*

CHAIRMAN'S STATEMENT

New Standard Engineering Company Limited

STATEMENT made by **Shri J. V. Patel, Chairman, New Standard Engineering Co. Ltd.,** on 27th July 1982 at Bombay.

Dear Shareholders,

It is indeed my privilege to extend to all of you a cordial welcome to the 24th Annual General Meeting of our Company.

"The year in retrospect"

1. *The Economy:* The year under review has been one of mixed trends in the economy. There was an unmistakable air of buoyancy in most sectors in the early part of the year. As the year progressed, however, symptoms of a slow-down developed in sector after sector in succession. The earliest to exhibit these symptoms was the textile industry. This industry had already moved far into the recessionary phase when strike broke out in 60 mills in Greater Bombay. Trucks and tractors, dyes and chemicals, paper & pulp, cables & wires, engineering industries in general and consumer durables followed suit over a period of a few months. With demand for their products flagging steadily, several industries are today moving in reverse gear.

The situation has been compounded by the recent liberalisation of import policies which has resulted in avoidable imports, in many cases, with deleterious impact on indigenous production.

Scarcity of working capital and investment funds has aggravated the situation. While the squeeze on working capital and accumulation of inventories have lowered liquidity in a large number of units, shortages of internally generated investment funds, coupled with tight resource position of the term lending institutions, have brought about a steep decline in the outlay of modernisation and expansion in several sectors where they are vitally needed. High interests costs, too, have tended to depress investments.

2. *Company's Operations:* The recessionary trends which developed in the economy during the year, under review are reflected clearly in the Company's performance. Income from sales, services, and other sources has not grown as planned; it has in fact declined from Rs. 1647.88 lakhs in the previous year to Rs. 1626.34 lakhs, as

the Directors have reported. Profits too, dropped from Rs. 42.23 lakhs to Rs. 39.08 lakhs. The Company also went through a spell of disturbance in industrial relations towards the end of the financial year, contributing to the decline in the overall performance.

Modernisation, reorganisation and R & D

The Company's own modernisation programme progressed apace during the year. Certain regrouping of facilities was carried out which will help the Company achieve important operational economies. With the sanctioning of term loan of Rs. 150 lakhs as mentioned in the Directors' Report, modernisation of the textile division is expected to progress further as planned. The Company has stepped up its Research & Development activities, with attention being turned increasingly to economies in the use of materials, import substitution, and improvements in the production processes.

Outlook for the future

I expect that the difficult phase the industry is currently going through will continue for a while before things begin to look up again. The economy has the basic pre-requisites for

a resumption of growth at a reasonably comfortable level. Agricultural output, improved infrastructure and a considerable degree of price stability to mention only a few. As a measure of flexibility in the matter of finance and credit policies, a set of essential defensive steps against "dumping" from abroad and a carefully calculated and finely tuned measures to stimulate demand. It should be possible to overcome the present situation. It is my earnest hope that, despite the many problems now facing the industry, the Company shall be able, by the current financial year, to regain the momentum it has lost in the recent months.

Conclusion: I would like to place on record my appreciation of the contributions of all our employees to the overall performance of the Company. I am grateful to our foreign collaborators, financial institutions and bankers for their support. I thank, too, my colleagues on the Board for their guidance which has been indispensable to the Company in all its endeavours.

Note: This does not purport to be a record of the proceedings of the Annual General Meeting.

CORPORATE SECTOR

In the market

McLeod Russel (India)

McLeod Russel PLC UK is being offered for sale to the Indian public. The company has 27,500 equity shares of Rs 10 each (at a premium of Rs 2 per share) in McLeod Russel (India) Ltd. (Registered Office: Namdang Road, 27 Shakespeare Sarani, Calcutta 700 017) totalling Rs 32.75 crores. The application list for shares was closed on September 20 and will be opened on September 30. The company was incorporated as a public limited company in March 1976 for manufacturing tea. The object of the present issue is to reduce the non-voting shareholding in the company to 40 per cent.

Other developments

Brooke Bond India: Sales up

Total sales of Brooke Bond India Ltd for 53 weeks ended 3rd September 1982 increased to Rs 212.70 crores from Rs 182.20 crores for the corresponding weeks period ended 27th June 1982. The net profit after providing for depreciation and Rs 7.20 crores (Rs 5.35 crores) for taxation was Rs 15.35 crores (Rs 5.29 crores). The dividend recommended for the year under review is 22.5 per cent (20 per cent). An amount of Rs 9 lakhs (Rs 9 lakhs) is transferred to investment allowance reserve and Rs 2.21 crores (Rs 2.20 crores) to general reserve.

NOCIL introduces new pesticide

National Organic Chemical Industries Ltd (NOCIL) has introduced a new generation pesticide under the brand name Ripcord. It is said to be a powerful synthetic pyrethroid with a low level of mammalian toxicity, and combined with the very low dosage becomes safe for animals. In conjunction with Monocil, another well-known NOCIL insecticide, the new product would assist the farmer improved yields and quality of crops.

ICICI arranges Euro-dollar loan

The Industrial Credit and Investment Corporation of India

Limited (ICICI) has concluded arrangements for obtaining a Euro-dollar loan of \$12 million from a consortium of banks led by State Bank of India. Shri S. S. Nadkarni, Managing Director, ICICI, signed the loan agreement on behalf of ICICI in Singapore on September 14, 1982. The loan has been arranged by State Bank of India along with Bank of Tokyo, Iping Trust and the Central Bank of India. The interest on the loan would be on variable basis, the spread being 3/8 per cent over six month Singapore inter-bank offered rate.

Standard Mills pays 18 per cent

Sales of the Standard Mills Company Ltd for the 15 months ended June 1982 amounted to Rs 111.81 crores compared to Rs 101.03 crores for the year ended March 1981. The net profit after providing Rs 4.52 crores (Rs 3.32 crores) for depreciation and nil (Rs 2.60 crores) for taxation was Rs 90.96 lakhs (Rs 6.31 crores). The equity dividend recommended for the period under review is 18 per cent (22 per cent) payable on the increased capital after bonus issue. An amount of Rs 15 lakhs (Rs 3 crores) is transferred to general reserve.

Forthcoming company meetings

SEPTEMBER 25 TO OCTOBER 1

INDIA CEMENTS LTD, German Hall, 17, Prakasa (Mudali) Street, T. Nagar, Madras 600 017 (Sept. 27, 10.15 a.m.)

NEW GREAT EASTERN SPG & WVG. CO LTD, Conference Hall, All India Manufacturers' Organisation, Jeevan Sahakar, 4th Floor, Sir P. M. Road, Fort, Bombay 400 001 (Sept. 27, 4 p.m.)

MACKINNON MACKENZIE & CO LTD, Patkar Hall, New Marine Lines, Bombay 400 020 (Sept. 27, 11 a.m.)

INDIAN CABLE COMPANY LTD, 9, Hare Street, Calcutta 700 001 (Sept. 27, 4 p.m.)

INDIA RADIATORS LTD, Hotel Dasaprakash, 100, Poonamallee High Road, Madras 600 084 (Sept. 28, 4.35 p.m.)

GRAMOPHONE CO OF INDIA LTD, Main Hall, Bengal Chamber of Commerce and Industry, 6, Netaji Subhash Road, Calcutta 700 001 (Sept. 29, 3.30 p.m.)

JAYSHREE CHEMICALS LTD, 14, Netaji Subhas Road, Calcutta 700 001 (Sept. 29, 11.30 a.m.)

JARDINE HENDERSON LTD, 4, Clive Row, Calcutta 700 001 (Sept. 29, 11 a.m.)

HUKUMCHAND JUTE MILLS LTD, 15, India Exchange Place, Calcutta 700 001 (Sept. 29, 3 p.m.)

RAYMOND WOOLLEN MILLS LTD, Birla Matushri Sabhagar, 19, Marine Lines, Bombay 400 020 (Sept. 29, 3.30 p.m.)

AHMEDABAD ADVANCE MILLS LTD, Bombay House, 24, Homi Mody St., Bombay 400 023 (Sept. 29, 4 p.m.)

SANKEY WHEELS LTD, Feeder Road, Durgapur 713 201 (Sept. 29, 12 noon)

ULTRAMARINE & PIGMENTS LTD, Walchand Hirachand Hall, Indian Merchants' Chamber Bldg., 76, Veer Nariman Road, Churchgate, Bombay 400 020 (Sept. 29, 11 a.m.)

MODI INDUSTRIES LTD, Dayawati Modi Public School Auditorium, Modinagar (Sept. 30, 4 p.m.)

CITRIC INDIA LTD, Panchak, G. D. Somani Marg, Nasik Road, Maharashtra (Sept. 30, 3.30 p.m.)

AIR CONTROL & CHEMICAL ENGINEERING COMPANY LIMITED, Conference Room CAMA Hotel, Khanpur, Ahmedabad 380 001 (Sept. 30, 11.30 a.m.)

RAMON & DEMM LTD, Rama Watumall Hall, Kishinchand Chellaram College, Dinshaw Wachha Road, Churchgate, Bombay 400 020 (Sept. 30, 3.30 p.m.)

SESA GOA LTD, Altinho, Panjim, Goa 403 001 (Sept. 30, 4 p.m.)

GAJRA BEVEL GEARS LTD, Industrial Area A B Road, Dewas 455 001 Madhya Pradesh (September 30, 4.14 p.m.)

ORIENT PAPER & INDUSTRIES LTD, Brajrajnagar, Dist Sambalpur, Orissa (September 30, 2.30 p.m.)

BENGAL FERRO ALLOY & STEEL LTD, Everest House, 20th Floor 46/C, J L Nehru Road, Calcutta 700 071 (September 30, 10 a.m.)

HIND RECTIFIERS LTD, Kamalnayan Bajaj Hall, Gr. Floor Bajaj Bhawan, 226, Nariman Point Bombay 400 021 (September 30, 11 a.m.)

GANNON DUNKERLEY & CO LTD, Chartered Bank Building Fort, Bombay 400 023 (September 30, 12 noon)

TITAGHUR PAPER MILLS LTD, Xavier's Hall 30, Park Street, Calcutta 700 016 (September 30, 11 a.m.)

SLM MANEKLAL INDUSTRIES LTD, Sheth Shri Amritlal Hargovindas Memorial Hall of Gujarat Chamber of Commerce & Industry Ashram Road, Ahmedabad 380 009 (September 27, 9.30 a.m.)

FORT WILLIAM COMPANY LTD, 14, Netaji Subhas Road Calcutta 700 001 (September 30, 3 p.m.)

KELVINATOR OF INDIA LTD, Hotel Oberoi Maidens 7, Sham Nath Marg, New Delhi 110 056 (September 30, 11 a.m.)

Financial analysis of operations of non-financial companies

Compiled by Commerce Research Bureau

(Rs lak)

Name of Company	Aditya Mills		Ahmedabad Mfg. & Calico Printing Co.		Ahmedabad New Cotton Mills Co.		Bharat Vijay Mills		Saraspur
Industry Group	Cotton Textiles		Cotton textiles		Cotton textiles		Cotton textiles		Cotton tex
Item	Year ended December		Year ended March		Year ended December		Year ended December		Year end Decem
	1980	1981	1981	1982	1980	1981	1980	1981	1980
Liabilities (at the end of the year)									
1. Net worth (i+ii)	304.4	263.5	2,114.2	2,084.5	347.6	385.8	576.5	833.0	357.8
(i) Paid-up capital (a+b)	135.0	135.0	946.8	946.8	90.0	105.0	125.3	173.6	86.0
(a) Equity	120.0	120.0	917.5	917.5	80.0	80.0	120.0	168.3	80.0
(b) Preference	15.0	15.0	29.3	29.3	10.0	25.0	5.3	5.3	6.0
(ii) Reserves	169.4	128.5	1,167.4	1,137.7	257.6	280.8	451.2	659.4	271.8
2. Borrowings (i+ii)	534.8	619.3	5,001.6	5,457.4	560.1	738.3	1,028.1	1,569.8	440.6
(i) Long-term	281.9	325.5	1,651.1	1,911.4	234.7	365.1	355.5	487.3	165.8
(ii) Short-term	252.9	293.8	3,350.5	3,546.0	325.4	373.2	671.6	1,082.5	274.8
3. Non-current liabilities and provisions	13.2	12.0	—	—	—	—	—	—	—
4. Current liabilities and provisions	232.8	392.8	2,606.5	3,592.4	253.5	544.7	1,012.0	1,657.6	312.0
Assets (at the end of the year)									
5. Gross fixed assets	802.2	876.4	6,751.6	7,287.8	861.0	1,182.4	1,355.9	1,699.2	912.0
6. Less depreciation	251.7	292.8	4,087.0	4,351.3	400.7	453.8	359.1	453.9	455.3
7. Net fixed assets (5-6)	550.5	583.6	2,664.6	2,936.5	460.3	728.6	996.8	1,245.3	456.7
8. Current assets (i+ii+iii)	534.4	704.0	7,027.7	8,166.9	692.3	931.6	1,594.1	2,761.2	653.6
(i) Inventories	404.3	533.7	3,118.4	3,080.1	339.4	562.1	828.8	1,231.0	390.7
(ii) Receivables and loans and advances	104.6	157.9	3,771.2	4,808.4	278.6	334.7	615.3	1,188.9	237.3
(iii) Others	25.5	12.4	138.1	278.4	74.3	34.8	150.0	336.3	25.6
9. Other assets	0.3	—	30.0	30.9	8.6	8.6	25.7	58.9	0.1
Total: Liabilities (1 to 4) or Net assets (7 to 9)	1,085.2	1,287.6	9,722.3	11,134.3	1,161.2	1,668.8	2,616.6	4,060.4	1,110.4
Value of production and other income									
10. Sales/income net of excise duty, discounts and selling commission	1,413.0	1,610.5	10,511.1	12,714.2	1,653.1	1,807.5	2,451.6	4,080.8	1,789.3
11. Increase in stock of finished goods and work in progress	-28.7	163.2	-99.0	76.9	-9.6	200.5	296.0	257.7	22.5
12. Value of production (10+11)	1,384.3	1,773.7	10,412.1	12,791.1	1,643.5	2,008.0	2,747.6	4,338.5	1,811.8
13. Other income	10.4	12.2	243.9	299.6	12.9	17.6	4.2	39.8	8.7
Expenditure									
14. Materials, stores and other mfg. expenses	1,051.4	1,436.6	7,015.4	8,755.9	1,055.3	1,396.0	2,030.1	3,095.1	1,208.3
15. Current repairs	3.5	3.3	115.7	124.4	41.0	39.1	13.3	19.4	34.0
16. Salaries and wages	146.4	179.1	1,732.0	1,988.9	292.3	321.8	270.3	615.9	339.8
17. Welfare expenses	3.4	3.6	6.6	10.2	14.0	16.1	16.4	25.0	16.4
18. Managerial remuneration	0.1	—	—	0.4	0.4	—	—	—	0.1
19. Other expenses	41.9	51.3	712.4	819.9	51.9	58.7	57.9	127.1	48.5
20. Depreciation	37.6	44.9	341.5	301.2	39.3	55.9	72.3	95.6	44.1
21. Other provisions	1.5	1.0	—	—	—	—	—	—	—
22. Operating profit (12+13)-(14 to 21)	108.9	66.1	732.4	1,089.8	167.2	138.0	291.5	400.2	129.3
23. Interest	74.5	113.8	851.6	1,011.1	73.5	102.6	92.4	302.3	60.6
24. Tax provision	—	—	—	—	18.5	—	65.0	—	4.5
25. Profit after tax (22-23-24)	34.4	-47.7	-119.2	78.7	75.2	35.4	134.1	97.9	64.2
Appropriations									
26. Dividends (i+ii)	—	—	133.9	133.9	15.7	13.7	30.3	25.0	15.5
(i) Equity	—	—	132.1	132.1	15.2	12.0	30.0	24.7	15.2
(ii) Preference	—	—	1.8	1.8	0.5	1.7	0.3	0.3	0.3
27. Profit retained (25-26)	34.4	-47.7	-253.1	-55.2	59.5	21.7	103.8	72.9	48.7
Total: Value of production and other income (12+13) or Expenses and appropriations (14 to 22)	1,394.7	1,785.9	10,656.0	13,090.7	1,661.4	2,025.6	2,751.8	4,378.3	1,820.5
Operational indicators (per cent)									
(a) Net worth/total net assets	28.1	20.5	21.7	18.7	29.9	23.1	22.0	20.5	32.2
(b) Inventories/net sales	28.6	33.1	29.7	24.2	20.5	31.1	33.8	30.2	21.8
(c) Operating profit/net sales	7.7	4.1	7.0	8.6	10.1	7.6	11.9	9.8	7.2
(d) Operating profit/total net assets	10.0	5.1	7.5	9.8	14.4	8.3	11.1	9.9	11.6
(e) Profit after tax/net worth	11.3	—	—	3.8	21.6	9.2	23.3	11.8	17.9
(f) Equity earning/equity capital	28.7	—	—	8.4	93.4	42.1	111.5	58.0	79.9
(g) Equity dividend	—	—	14.4	14.4	19.0	15.0	25.0	20.0	19.0
(h) Equity dividend coverage. (No. of times)	—	—	—	0.6	4.9	2.8	4.5	2.9	4.2
(i) Paid-up value per equity share (Rs.)	10.00	10.00	125.00	125.00	100.00	100.00	100.00	100.00	100.00
(j) Market price of an equity share (Rs.)	N.A.	10.31	319.00	208.00	220.00	180.00	675.00	510.00	190.00
(k) Gross yield	—	—	5.6	8.7	8.6	8.3	3.7	3.9	10.0
(l) Gross fixed assets formation	34.9	9.2	5.7	7.9	18.6	37.3	55.1	25.3	18.9
(m) Debt/equity	0.93:1	1.24:1	0.78:1	0.92:1	0.68:1	0.95:1	0.62:1	0.58:1	0.46:1

NOTES: .. Category not applicable ... Amount/Percentage is negligible —Amount is nil N.Q. Not quoted N.A. Not available
 The profit figures shown in the above statement have been calculated by making, wherever necessary, additions or deductions of value items so as to show the true profit pertaining to the particular year on a uniform and comparable basis. Similar adjustments are sometimes made in other items also. Totals may not add up due to rounding off.

STOCKS

THE WEEK'S PRICE RANGE

(Compiled by
Commerce Research Bureau)

margins row hits

Bombay, September 20

daily margins imposed by the authorities towards the last week curtailed substantially. The margins of Rs 15 each on Century, Steel, PAL, ACC and GSFC 10 on Reliance. The margins applicable to both buy and sell. As the margins were recovered from the brokers took the issue of V. D. Sonde, executive of BSF, on last Monday. The governing board subsequently not to make any change in proposed daily margins. The brokers and finally boycotted the session on Monday, although the market was officially open. They further said that they should not operate in the trading till the margins were scrapped or substantially altered. Considerably infuriated mood of the BSE assured the brokers the daily margins would not be effected on Thursday and Friday and that it would review the matter on September 20. Before BSE president, Mr Lal-m-nadas, had also promised to look into the 'serious situation' that had developed in the market in the last six months.

Following the assurance of the BSE not to collect daily margins, trading was resumed on Thursday with small attendance.

The final decision yet to be taken on the daily margins, the marketmen preferred to toe the official line. As a result, sellers were in excess of buyers. Century, GSFC, Gwalior, Baroda Rayon, Indian Rayon, Indian Rayon, Standard, Tata Steel and South Viscose encountered selling in varying degrees. PAL, Tata Oil, Tata Chemicals, Larsen and MICO, however, found buyers to make small net gains.

In the group, Madras Cement, Auto, Bayer, Century Enka, Steel, and Pond's came in for profit-taking in view of the week's smart rally. The consistent fall, continued to reports of reorganisation management set-up.

"A" Group Equity Shares

	Closing quotations 11-9-82	High	Low	Closing quotations 13-9-82		Closing quotations 23-9-82	High	Low	Closing quotations 4-9-82
A. C. C. (100)	360.50	370.50	361.00	365.00	German Remedies (10)	38.50	38.50	38.00	38.00
Ashok Leyland (10)	85.50	35.75	35.00	35.00	Gokak (10)	15.50	15.50	15.00	15.25
Ballarpur Ind. (10)	40.00	11.00	40.50	41.00	Great E. Shipping (10)	15.25	15.75	14.75	15.00
Baroda Rayon (100)	268.00	270.00	264.00	267.00	Gujarat Alkali (10)	43.00	43.00	42.00	42.00
Bihar Alloy (10)	12.00	11.75	11.00	11.00	Guj. Narmada (10)	12.00	12.25	12.00	12.25
Bombay Dyeing (25)	66.50	70.00	66.00	66.00	Gujarat Steel Tubes (100)	270.00	275.00	265.00	265.00
Century (10)	730.00	740.00	710.00	720.00	Herdillia Chem. (10)	20.75	20.75	20.00	20.50
Colgate (10)	79.00	80.00	78.00	79.00	Hind Brown (100)	275.00	277.50	270.00	277.50
E. I. Hotel (10)	19.00	19.25	18.50	18.75	Hind Ferodo (10)	43.00	50.00	43.00	43.50
Garware Nylon (10)	27.00	27.75	27.00	27.50	Hindustan Sugar (100)	215.00	222.50	212.50	222.50
Guj. State Fert. (100)	435.00	440.00	430.00	434.00	Hindustan Spg. (250)	187.50	187.50	187.50	187.50
Gwalior Rayon (10)	18.00	17.50	16.50	17.25	Hoechst Dyes (10)	24.00	24.00	23.50	24.00
Hind. Alum. (10)	30.50	31.50	30.00	31.00	IDL Chemicals (10)	15.00	—	—	15.00*
Hind. Lever (10)	51.50	51.75	51.00	51.50	Indian Explosive (10)	19.00	19.00	18.50	18.50
Hindustan Motor (10)	24.75	25.75	25.00	25.75	Indian Hotels (10)	60.00	60.00	58.00	60.00
Indian Dyestuff (100)	214.75	220.00	210.00	215.00	Industrial Cable (10)	30.00*	—	—	30.00*
Indian Organic (10)	27.50	28.50	27.50	28.50	Ingersoll Rand (10)	165.00	167.00	163.00	164.00
Indian Rayon (10)	87.50	87.75	86.50	87.00	J. K. Cotton (10)	13.50*	13.50	13.25	13.25
ITC Ltd. (10)	34.00	33.75	33.00	33.75	Jayant Paper (100)	142.50	148.75	142.50	148.75
J. K. Synthetics (10)	59.25*	60.00	59.00	60.00	Jyoti (10)	20.00	20.25	19.25	20.25
Larsen & Toubro (10)	51.50	55.75	51.25	54.25	Kamani Eng. (10)	66.00	66.00	65.50	65.50
Mahindra & Mahindra (10)	44.00	43.50	43.00	43.50	Khand, Ferro (100)	122.50*	122.50	109.00	105.00
Metal Box (10)	12.00	11.75	11.25	11.50	Khatana (100)	202.50	205.00	200.00	200.00
Modi Rubber (10)	28.00	28.00	27.00	27.50	Kirloskar Cummins (100)	586.25	625.00	607.50	625.00
Motor Industries (100)	240.00	242.50	237.50	242.50	Kirloskar Oil (10)	20.25	20.75	20.25	20.75
MRF (10)	22.00	22.00	21.25	22.00	Kohinoor Mills (100)	53.00	53.00	53.00	53.00
Mukand Iron (10)	25.00	25.25	24.50	25.00	Laxmi Vishnu (100)	44.00*	44.00	44.00	44.00*
National Organic (100)	176.00	177.00	174.00	176.00	Madura Coats (10)	17.50	17.50	17.25	17.50
Nirlon (10)	51.00*	38.00	36.75	37.75	Mafatlal Eng. (100)	91.00	93.00	88.00	88.00
Premier Auto (100)	350.00	371.00	357.00	369.00	Mafatlal Ind. (125)	312.50	315.00	310.00	315.00
Reliance Textile (10)	163.00	166.50	163.50	164.50	Mafatlal Fine (100)	162.50	162.50	158.75	161.25
Scindia (20)	12.00	12.25	12.00	12.00	Maharashtra Sugar (50)	36.00	—	—	36.00*
Shriram Fibres (10)	48.00	49.50	48.50	49.00	Mahindra Ugin (10)	39.50	41.50	39.75	39.75
Siemens India (10)	38.50	39.00	38.25	39.00	Morarjee (100)	180.00	—	—	180.00
Sirpur Paper (10)	20.00	20.50	20.00	20.25	Mysore Cement (10)	41.00	43.00	40.00	40.50
South India Viscose (100)	205.00	205.00	197.50	197.50	National Rayon (100)	332.50	335.00	330.00	335.00
Southern Petro (10)	14.75	15.15	14.75	15.00	New Gr. Eastern (100)	70.00*	70.00	70.00	70.00
Standard Mills (100)	291.00*	293.00	288.00	290.00	New Stand. Eng. (100)	95.00	295.00	290.00	295.00
Straw Products (10)	44.00	44.00	43.00	44.00	Otis Elevator (10)	32.00	34.50	32.00	34.50
Svadeshi Mills (100)	132.00	131.00	129.00	131.00	Pfizer (10)	23.00	23.75	22.50	23.75
Tata Chemicals (10)	50.00	53.50	50.00	53.50	Podar Mills (10)	5.50*	—	—	5.50*
Tata Eng. & Loco. (100)	411.00	419.00	398.00	407.00	Polychem (50)	50.00	52.00	51.00	52.00
Tata Oil (25)	58.00	61.50	56.00	61.50	Polyolefins Ind. (100)	190.00*	197.50	190.00	190.00
Tata Steel (100)	342.50	342.00	330.00	337.00	Premier Const. (80)	95.00	96.00	93.00	96.00
Volta (100)	266.00	267.00	264.00	266.00	Raghuvanshi (100)	122.50*	—	—	122.50*
Zenith Steel pipe (10)	43.00	42.50	41.50	42.00	Rallis India (100)	180.00	182.50	177.50	182.50
Zuari Agro (10)	20.25	20.75	19.25	19.75	Raymond Wool (10)	34.50*	35.50*	34.00*	34.00*

"B" Group Equity Shares

Ahmed Advance (100)	250.00*	250.00*	225.00*	230.00*	Rallis India (100)	180.00	182.50	177.50	182.50
Ahmedabad Elect. (100)	101.00	101.50	101.00	101.50	Raymond Wool (10)	34.50*	35.50*	34.00*	34.00*
Alkali & Chem. (10)	15.25*	15.25	12.00	13.00	Rohit Pulp (100)	150.00*	—	—	150.00*
Amar Dye Chem. (100)	125.00	130.00	122.50	130.00	Sandoz (10)	25.00	26.00	24.50	26.00
Andhra Valley (100)	24.00	98.00	96.00	97.50	Sandvik Asia (100)	322.50	322.50	318.75	322.50
Apre Amalgamated (50)	26.00*	—	—	26.00*	Sautashtra Cement (100)	132.50*	—	—	132.50*
Asian Cables (100)	141.25	142.50	140.00	140.00	Shri Dig. Cement (100)	292.50	317.50	290.00	317.50
Assoc. Bearing (100)	380.00	383.75	378.75	383.75	Shree Niwas (100)	75.00*	—	—	75.00*
Auto. Products (10)	11.50	11.50	11.00	11.50	Shree Ram (100)	52.00	—	—	52.00*
Bajaj Auto (100)	1180.00	1,190.00	1,180.00	1,170.00	Simplex (50)	59.50	59.50	59.00	59.50
Bajaj Elect. (100)	157.50	—	—	157.50*	SLM-Maneklal (100)	150.00	152.50	151.25	152.50
Bayer (India) (100)	257.50	257.50	245.00	250.00	Special Steels (100)	65.00	65.00	65.00	65.00
BASF (100)	39.00	39.00	38.00	38.50	Stretch Fibres (10)	8.50	—	—	8.50*
Bate & Crompton (100)	37.50	31.00	35.50	37.00	Sunat Electric (100)	108.00*	104.00	99.50	100.00*
Bhadrachalam Paper (10)	27.00	27.25	26.75	27.25	Swadeshi Polytex (10)	15.50	16.00	15.25	16.00
Bimetal Bearings (10)	27.00	27.25	26.75	27.25	Swan Mills (100)	120.00	130.00	125.00	130.00
Blue Star (10)	37.50	37.50	36.50	37.00	Synthe & Chem (100)	76.00	—	—	76.00*
Bombay Burmah (25)	45.00	—	—	45.00*	Tata Hydro (100)	99.00	99.00	97.00	99.00
Bombay Oxygen (100)	122.50	—	124.00	125.00	Tata Mills (25)	16.00	—	—	16.00*
Bombay Suburban (100)	130.00*	130.00	121.75	122.25	Tata Power (100)	102.00	100.50	99.00	99.50
Cadbury (10)	22.00	22.25	20.00	20.00	Tata Yodogawa (100)	127.50	—	—	127.50*
Camphor Allied (100)	160.00*	150.00	140.00	200.00	Tata Yodogawa (100)	13.50	14.75	13.50	14.25
Ceat Tyres (100)	197.50	200.00	195.00	200.00	Tata Yodogawa (100)	43.50	—	—	43.50*
Central Ind. Spg. (50)	43.00	43.00	41.00	41.00	Tata Yodogawa (100)	151.25	—	—	151.25*
Century Enka (100)	645.00	645.00	635.00	640.00	Textitaco (10)	29.50	29.50	29.00	29.50
Chemical & Fibres (10)	18.30	19.00	18.50	19.00	United Carbon (100)	29.00*	—	—	27.00*
Colour Chem (100)	177.50	180.00	172.50	180.00	Vulcan Laval (10)	—	—	21.75	22.50
Corom. Fert. (100)	31.00	31.50	30.00	30.00	Walchand Nagar (10)	21.00	—	—	21.00
Crompton Greaves (100)	337.50	337.50	335.00	337.50	Warner Hind. (10)	85.00	82.50	80.00	82.50
Cyanamid India (10)	25.00	26.00	25.00	25.00	West Coast Paper (100)	11.00	11.00	10.75	11.00
Dawn Mills (50)	57.00*	58.00	55.00	55.00	Wimco (10)	—	—	—	—
Elecon Eng. (10)	33.50*	31.00	30.00	31.00					
Empire Ind. (15)	19.00	—	—	19.00*					
Ennore Foundries (10)	40.00	41.00	40.00	40.00					
Escorts (10)	36.50	37.00	36.00	36.50					
Ferro Alloy (100)	200.00	203.75	196.25	203.75					
FGP (10)	14.50*	13.50	12.50	12.50					
Finlay (100)	72.50	80.00	72.50	75.00					
Gammon India (10)	13.25	13.75	13.25	13.75					
Garware Paints (10)	19.25	19.50	19.00	19.50					

Notes: (a) Figures within brackets indicate the paid-up value of shares. (b) An asterisk mark after the quotation indicates the closing prices of the last official trading and not of the date indicated in the columns. (c) The dash (—) in the columns for 'High' and 'Low' mean that no official trading in the share had taken place during the period under report.

Market Gossip

New drug pricing policy?

SINCE New Delhi has announced an increase in the selling prices of some of the drugs, the writ petitions which had been filed in the court by half a dozen pharmaceutical concerns are likely to be withdrawn. Mr S. V. Pillai, chairman of Pfizer Limited, has said that, in any case, his company had decided to withdraw the writ petition pending before the Delhi High Court because of the hike in prices granted to the company in the recent past. The rise permitted in prices was of the order of eight to thirteen per cent as far as Pfizer was concerned, and Mr Pillai expected a change in the government's pricing policy of pharmaceuticals. He indicated that a dual pricing policy for drugs was being discussed by the industry with the government. If such a policy materialises, about 130-140 drugs considered to be essential would remain under price control and the remaining drugs would be decontrolled, subject to an overall ceiling on profits of the manufacturers.

Hike in deposit rates?

COMMERCIAL banks would appear to be in favour of an increase in the rates of interest on short-term bank deposits as a measure for correcting the downward trend in deposit mobilisation. Growth in bank deposits has slowed down since earlier this year and the Reserve Bank has set up a committee under Dr Rangarajan, deputy governor of the Reserve Bank of India, to study the decline in the growth rate of bank deposits. According to Mr P. B. Srinivasan, chairman and managing director of the Indian Overseas Bank, the banking industry has already made a suggestion to the RBI for an increase in the rate of interest on short-term bank deposits. He did not explain whether banks wanted the rise in deposit rates to be accompanied by a hike in lending rates. In his view the acceptance of deposits by public sector companies and the issue of convertible and non-convertible debentures by a number of private sector companies had contributed to the decline in rate of growth of bank deposits. He also pointed out that there was a steep decline in the flow of

deposits from non-residents because of the collapse of some exchange companies in the Gulf countries. The Dr Rangarajan Committee is expected to submit its report within the next two months.

Woollen industry demands reservations

THE woollen industry has found the export-import policy helpful, according to the chairman of the Indian Woollen Mills' Federation, Mr B. K. Kedia. "The policy enables the industry to import all types of raw materials under OGL. Government has also extended the facility of OGL imports to a few items of woollen machinery", Mr Kedia told the annual general meeting of the federation held recently in Bombay. The government has conceded the demand of the industry for recognition of wool top as an intermediate product for supply to the valid import licence holders. This, according to Mr Kedia, "has become a major policy decision of the Government of India". The industry, however, wants that the indigenous wool top, which has been accorded the status of "intermediate product" meant for export production, should also be eligible for supply against duty-free REP licence holders.

The Indian Woollen Mills' Federation has demanded the following reservations:

a) That 3 ply and above knitting yarn or grey yarn meant for making hand knitting yarn made out of acrylic fibre be restricted for manufacture by the woollen industry.

b) That art silk and cotton mills shall not be permitted to use acrylic fibre of denier higher than 2.0 and fibre length greater than 38 mm.

"If this reservation is accepted, in Mr Kedia's view, "there would be no undue and unfair competition between of the products of small woollen mills and the products of the large cotton mills."

Non-ferrous metals: Missing targets

THANKS to the deteriorating power situation, the public sector undertakings engaged in production of basic

non-ferrous metals have once again failed to match production to capacities installed for them. Bharat Aluminium Ltd, which has an installed capacity of 100,000 tonnes, could produce only 34,754 tonnes of salable aluminium during 1981. Hindustan Copper Ltd could achieve an output of only 27,440 tonnes of blister copper as against the installed capacity of 47,500 tonnes during the year. Similarly, Hindustan Zinc produced 46,516 tonnes of zinc ingots and 14,462 tonnes of zinc ingots as against installed capacities of 75,000 tonnes and 18,000 tonnes, respectively. It is, therefore, to be appreciated that these companies have taken a somewhat realistic view and set moderately higher output targets for the current fiscal year. For example, Bharat Aluminium intends to produce 50,000 tonnes of aluminium, Hindustan Copper 37,000 tonnes of copper and Hindustan Zinc 57,000 tonnes of zinc and 15,000 tonnes of lead. But looking at the production trends during April-June period, it can be reasonably assumed that these targets are once again going to be missed.

Maharashtra Govt takes over two mills

TWO textile mills have been acquired by the Government of Maharashtra, one in Badnera in Amravati and the other in Bombay. Further, shares of a third mill in Pulgaon in the district of Wardha have also been acquired through ordinances enacted on August 24. The Maharashtra Government took over the management of Vijay Manufacturing Company at Badnera in Amravati with a payment of Rs 20 lakhs. Western Spinning and Manufacturing Company Ltd, located in Bombay was taken over with a payment of an amount of Rs 1.20 crore. The acquisition of the two mills by the State government is a move in the public interest for ensuring continued and increased production of goods, protection of employment and safeguarding the investment by the Government and financial institutions."

COMMODITIES

Groundnut oil falls

Bombay, September 20
Groundnut and its oil dropping the past week in improved supplies from South and Gujarat. Sellers, therefore active. Groundnut bold, Saurashtra and Saurashtra quality by Rs 10 each to Rs 591 and Rs 591 respectively per 100 kg. After the tendency last week, groundnut oil reacted by Rs 10 kg.

In sequel to quiet advice from the producing centres, sellers turned sellers in castor. Castor Madras small and pur bold fell by Rs 4 to Rs 332 and to Rs 322, respectively, per 100 kg. Castor commercial oil and castor oil remained subdued to slack demand from the former stood at Rs 74.75 and Rs 80.25 against Rs 74.75 and Rs 80.25 per 100 kg, respectively.

Groundnut seed and its oil ruled on lack of offerings. Linseed held the ground at Rs 470.00 per 100 kg while its oil

was quoted at Rs 115.44 against Rs 114.92 per 10 kg in the previous week.

Among cakes, groundnut expeller moved up by Rs 25 to Rs 1,650 and de-oil by Rs 50 to Rs 1,300 per tonne owing to scattered demand. Castor remained unchanged at Rs 800 per tonne in the absence of fresh offerings. Cottonseed, however, reacted by Rs 25 to Rs 1,600 per tonne.

Comparative prices in rupees per quintal of seeds and per 10 kg of oils:

	17-9-1982	10-9-1982
G. nut		
Karad bold	586.00	596.00
G. nut oil	135.46	138.32
Cast. Md. Sm.	332.00	336.00
Cast. oil com.	74.25	74.75
Cast. oil BSS	80.25	80.00
Linseed bold	470.00	470.00
Linseed oil	115.44	114.92

Grains subdued

Bombay, September 20
A subdued tendency marked trading in grains in the local market last week.

In cereals, wheat (Sehori Pissi) ruled steady at Rs 280-350 per quintal. The inflow of damaged inferior Punjab varieties depressed the sentiment. Demand was mainly from flour mills which absorbed most of the supplies. The Sonakalyan variety declined by Rs 5 to Rs 240-245 per quintal.

Good inflow of new crop rice depressed the sentiment. Demand was slack. The Basmati variety ruled steady at Rs 800-850 per quintal. Arrivals were limited. Exporters were reluctant to purchase basmati rice on account of the high price. The Surti Kolam variety was neglected at Rs 400-460 per quintal.

In coarse grains, prices ruled steady. Demand was poor. Jowar was quoted at Rs 150-215 per quintal, bajra at

Rs 170-260 per quintal, barley and maize at Rs 133-134 per quintal and Rs 165 per quintal respectively.

Among pulses, gram dal eased by Rs 2 to Rs 340-355 per quintal due to poor demand. Arrivals were meagre. Advices from producing centres were subdued. Moong (chumki) was offered Rs 17 lower at Rs 310-315 per quintal. Masoor dal declined by Rs 7 to Rs 350-395 per quintal. Urad (Khandesh) ruled steady at Rs 410 per quintal. Tur dal maintained earlier week's level of Rs 550-650 per quintal.

Sugar recedes

Bombay, September 20
Sugar prices receded in the local market owing to com-

BRITANNIA INDUSTRIES LIMITED

Registered Office: 15 Taratola Road,
CALCUTTA 700 088

NOTICE

NOTICE is hereby given that the Sixty-Fourth Annual General Meeting of the shareholders of Britannia Industries Limited will be held at Hotel Oberoi Grand, 1st Floor, 15, Jawaharlal Nehru Road, Calcutta 700 013, on Wednesday, the 10th November, 1982 at 10.30 a.m. to transact the Ordinary and Special Businesses set out in the Notice, which is being sent to all the Shareholders individually together with the Explanatory Statement pursuant to Section 173 of the Companies Act, 1956.

The Registers of Members of the Company will be closed from 1st October, 1982 to 10th November, 1982, both days inclusive. Dividends for the year ended 30th June, 1982 when declared will be paid to those shareholders or their mandatees entitled to dividend whose names appear in the Company's books on 10th November, 1982 on or after 12th November, 1982.

By order of the Board

N. SITARAMAN
DIRECTOR & SECRETARY

Dated: 8th October, 1982.

ESCORTS LIMITED

NOTICE

Pursuant to Press Note dated 29th July, 1982 issued by the Ministry of Industry, Department of Industrial Development, Government of India read with its Press Note dated 28th August, 1982 and as required under Rule 4A of the Monopolies and Restrictive Trade Practices Rules, 1970, it is hereby notified for the information of the public that Escorts Limited has applied to Government of India for re-endorsement of its licensed capacity for the manufacture of Motorcycles and Scooters at Faridabad (Haryana) based on the best production achieved during the last five years plus one-third thereof. Brief particulars of the proposal are as under:—

- | | | |
|---|--|-------------------------------|
| (i) Name(s) of the person(s) body corporate owning the undertaking: | ESCORTS LIMITED
H-2, Connaught Circus,
New Delhi. 110 001 | (Rs. lakhs) |
| (ii) Capital structure of the applicant undertaking: | Authorised Capital
Issued Capital
Subscribed and paid-up capital | 2000.00
1420.72
1418.41 |
| (iii) Details of the proposal: | | |
| i) Name of goods | Motorcycles and Scooters | |
| ii) Licensed capacity | 24,000 Nos. per annum | |
| iii) Re-endorsement on basis of best production. | 72,815 Nos. per annum | |

2. Any person interested in the matter may make representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhawan, New Delhi, under advice to the Company, within 14 days from the date of the publication of this Notice, intimating his views on the proposal and indicating the nature of his interest therein.

Registered Office:
H-2, Connaught Circus,
New Delhi 110 001.
Dated this 6th day of
September, 1982.

for ESCORTS LIMITED,

(CHARANJIT SINGH)
Vice-president and Secretary

NOTICE

BHARAT GEARS LIMITED

It is hereby notified for the information of the public that BHARAT GEARS LIMITED proposes to make an application to the Central Government in the Department of Company Affairs, New Delhi, under Sub-section 2 of Section 22 of the Monopolies and Restrictive Trade Practices Act, 1969, for the approval for establishment of a new undertaking for manufacturing 20 nos. of Machine Tools Turning Machine (Vertical Multispindle Chucking Automats). The annual turnover is expected to be Rs. 8 crores at full capacity. Other particulars of the proposed new undertaking are as under :

1. Name of the proposed undertaking BHARAT GEARS LIMITED.
2. Name(s) as of person(s) or authority/authorities proposing to establish the new undertaking. Where it is a body corporate furnish details of its management structure together with those of the proposed undertaking. Bharat Gears Limited. It is managed by its Managing Director under supervision, and control of Board of Directors.
3. Capital Structure of the applicant person or authority and of the proposed undertaking.

(Rs. in Crores)
Applicant Proposed Undertaking

—Authorised Capital	5.00	—
—Issued, Subscribed & Paid up Capital		
—Preference	0.30	—
—Equity	1.91	—

4. Proposed location of the New Undertaking : It is proposed to locate the new factory in a suitable MIDC Area near Pune.
5. Brief outline of the cost of the project, the scheme and source of finance : The estimated capital outlay is Rs. 2.70 crores which is proposed to be met from internal resources and term loans from financial institutions.

Any person interested in the matter may make a representation to the Secretary, Department of Company Affairs, Government of India, Shastri Bhavan, New Delhi, within 14 days from the date of publication of this notice, intimating his views on the proposal and indicating the nature of interest therein.

Dated 4th August, 1982.

Registered Office : for BHARAT GEARS LTD.

B-82, Himalaya House,
23-Kasturba Gandhi Marg,
NEW DELHI-110001.

S. S. GULATI
SECRETARY

portable supplies. The price of sugar C-30 grade declined by Rs 10 to Rs 429-445 per quintal. Demand from upcountry centres was slack. Arrivals during the week amounted to 22,575 bags. The undertone was subdued. Local stockists were keen on unloading due to lack of buying support. The city stocks at the close of week were lower at 4,918 bags as against 9,433 bags in the previous week. The price of sugar C-30 on September 18, 1982 was lower by Rs 116 per quintal than the level on the corresponding date a year ago.

Yarn dull

Bombay, September 20

A dull pattern was witnessed in the local yarn market during the past week. While the prices of 150D NRC and 120D NRC declined by 55 paise each to Rs 53.41 and Rs 56.72 respectively, the prices of 150D CR, 120D CR, 100D SIV and 150D Acetate remained unchanged at Rs 54.23, Rs 58.37, Rs 69.38 and Rs 50.66 respectively.

Money easy

Bombay, September 20

Conditions in the Bombay short-term money market

were easy during the week. The interest rates closed at four per cent and closed at five per cent.

Gold up, silver down

Bombay, September 20

The price of gold while the price of silver during the past week in Bombay bullion market. Standard mint gold opened at 1,710 per 10 gms and closed higher at Rs 1,715 per 10 gms. Ready silver (.999 fineness) opened at Rs 2,700 per kg and closed lower at Rs 2,690 per kg.

Aggregate deposits increase

Bombay, September 20

Aggregate deposits of scheduled commercial banks during the week ended September 10, 1982 increased by Rs 130.77 crores to Rs 46,830 crores. Bank credit expanded by Rs 81.37 crores to Rs 30,234.26 crores. The balance of banks with the Reserve Bank of India (RBI) declined by Rs 50.05 crores to Rs 5,086.98 crores while the borrowings of banks from RBI increased by Rs 4.34 crores to Rs 395.97 crores.

How commodities moved

By Commerce Research Bureau

(Rs per quintal*)

Commodity	Market	September 18, 1982	A week ago
Groundnut	(Rajkot)	508	550
Rapeseed	(Kanpur)	383	383
Sesamum	(Delhi)	610	625
Castorseed	(Kanpur)	285	285
Linseed	(Kanpur)	436	436
Sugar	(Bombay) (a)	437	447
Cotton	(Bombay) (b)	3,175	3,175
Jute	(Calcutta) (c)	245	245
Aluminium	(Bombay) (d)	1,630	1,640
Copper	(Bombay) (e)	3,140	3,160
Lead	(Calcutta) (f)	1,150	1,150
Zinc	(Calcutta) (g)	1,600	1,600
Gold	(Bombay) (h)	1,715	1,700
Silver	(Bombay) (i)	2,690	2,700
Caustic soda	(Bombay) (j)	580	585
Soda ash	(Bombay) (k)	250	239

* In terms of 10 gm for gold, kg for silver and candy for cotton

(a) C-30, (b) CJ-73, (c) W-5, (d) Scrap, (e) Wire bar, (f) Ingot, (g) Hard spelter, (h) Standard, (i) .996, (j) Flakes, and (k) Tata



